



## COVID-19 Scenario Planning Guidelines

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## Part I: Current Recommendations

### **Safest Possible Recommendation as of June, 2020:**

It is the recommendation of VASTA that Voice, Speech, Dialect and Text classes be taught online until such time as a vaccine or cure for COVID-19 is developed that refutes the known dangers outlined in current scientific literature. Teaching online is the only way to avoid risk of exposure to the virus. Until such time as there is evidence of an effective and safe means to teach face-to-face, voice and speech trainers are advised to avoid face-to-face methods where possible, and to try to limit exposure in instances where it is unavoidable or required by administrations.

Risk factors to consider when exploring the possibility of face-to-face teaching include but are not limited to: ventilation, sanitizing the space between sessions, masking of students and teacher(s), appropriate number of participants in the space, increasing physical distancing, and regular hand washing, as well as medical breakthroughs that drastically reduce risk (vaccine/treatment). Please refer to Part II for a thorough overview of risk factors and considerations.

It is with great faith in the teaching/coaching ability and creativity of our membership that new and effective ways of delivering curriculum will be imagined and implemented at this time.

While moving to online instruction is recommended for teaching voice and speech at this time, we recognize that doing so can deepen issues of access and equity in performance training. We advocate that institutions and organizations take active steps to make online learning accessible and equitable for all students. As we update Part III of this document, we will include ways in which the voice and speech trainer can build and support an equitable atmosphere in their learning spaces.

This series of guidelines has been created as a living document and will continue to be updated as new data becomes available.



## Part II: Risk Considerations for the Return to In-Person Voice and Speech Training

To make all factors below effective, there must be a collective agreement amongst students, faculty, staff, and administration to maintain clear regulations for safe instruction. Please refer to our appendix of resources to fully engage in a review of risk factors.

*Throughout this chart you will find the words “clear and obligatory protocols.” We want to highlight the challenges of ensuring that students are following guidelines when it comes to set expectations such as mask wearing, social distancing, or remaining in small groups.*

Subject	Factors which increase risk	Factors which reduce risk	Notes
<b>Entrance Control</b>	<ul style="list-style-type: none"> <li>• Commuter student populations: Public Transportation to class<sup>1</sup></li> <li>• Residential student populations: crossover between dorms, classes, and social<sup>2</sup> gatherings<sup>3</sup></li> <li>• Narrow hallways and stairwells to and from classroom spaces<sup>4</sup></li> <li>• Buildings which utilize elevators as a primary means of access<sup>5</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Clear and obligatory entrance and exit protocols</li> <li>• Staggered class transitions</li> <li>• One-way trafficking of students around campus<sup>6</sup></li> <li>• Temperature checks</li> <li>• Symptom queries</li> <li>• Regular testing and tracing*</li> <li>• Clear and obligatory protocols for protective practices in shared spaces</li> </ul>	*rolling documentation on testing procedures and efficacy will be necessary

<sup>1</sup> <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/bus-transit-operator.html>

<sup>2</sup> <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/shared-housing/index.htm> |

<sup>3</sup> <https://www.ncbi.nlm.nih.gov/books/NBK143281/>

<sup>4</sup> <https://www.theatlantic.com/health/archive/2020/04/coronavirus-pandemic-airborne-go-outside-masks/609235/>

<sup>5</sup> <https://www.nytimes.com/2020/06/07/business/coronavirus-offices-cdc-guidelines.html?>

<sup>6</sup> <https://educatingthroughcrisis.org/meeting-students-and-families-needs/guidance-for-reopening-schools-covid/>



<b>Learning Space</b>	<ul style="list-style-type: none"> <li>● Poor ventilation or lack of ventilation<sup>7</sup></li> <li>● HVAC systems which recycle air throughout the building<sup>8 9</sup></li> <li>● Small spaces which do not accommodate social distancing<sup>10</sup></li> <li>● Large groups of students<sup>11</sup></li> <li>● Long course periods creating greater exposure to aerosolized virus</li> <li>● Shared instructional materials</li> <li>● Turbulence or convection causing adverse air movement<sup>12</sup></li> </ul>	<ul style="list-style-type: none"> <li>● Accommodations for at-risk groups</li> <li>● Air turnover rate at 10-12 times per hour</li> <li>● Ventilation of outside air into the building<sup>13</sup></li> <li>● Maintaining humidity factors to decrease viral incubation<sup>14</sup></li> <li>● Supplemental UV disinfection systems in heightened ceiling spaces<sup>1516</sup></li> <li>● Heightened ceilings accompanied by proper ventilation for increase air turnover</li> <li>● Clear and obligatory sanitization and disinfection protocols<sup>17</sup></li> <li>● Access to larger spaces, including outdoor spaces*, to accommodate social distancing<sup>1819</sup></li> <li>● Assign instructional materials to individuals</li> </ul>	*must consider wind direction and quality
<b>Personal Protection</b>	<ul style="list-style-type: none"> <li>● Working in close proximity to potential carriers</li> <li>● Working face-to-face with potential</li> </ul>	<ul style="list-style-type: none"> <li>● Clear and obligatory social distancing protocols*<sup>21</sup></li> </ul>	*Note that 6 feet/2

<sup>7</sup> <https://www.nytimes.com/2020/03/04/opinion/coronavirus-buildings.html>

<sup>8</sup> <https://www.bbc.co.uk/news/science-environment-52522460>

<sup>9</sup> <https://arxiv.org/abs/2003.13689>

<sup>10</sup> <https://www.nytimes.com/interactive/2020/04/14/science/coronavirus-transmission-cough-6-feet-ar-ul.html>

<sup>11</sup> <https://www.nytimes.com/2020/06/15/opinion/coronavirus-college-safe.html>

<sup>12</sup> <https://www.ncbi.nlm.nih.gov/books/NBK143281/>

<sup>13</sup> [Respiratory droplets - Natural Ventilation for Infection Control in Health-Care Settings](#)

<sup>14</sup> [Opinion | Your Building Can Make You Sick or Keep You Well](#)

<sup>15</sup> <https://bit.ly/2BrgPjW>

<sup>16</sup> <https://bit.ly/2AdtUgi>

<sup>17</sup> <https://www.cdc.gov/handwashing/when-how-handwashing.html>

<sup>18</sup> <https://www.bbc.co.uk/news/science-environment-52522460>

<sup>19</sup> <https://elemental.medium.com/will-your-soccer-club-ever-meet-again-a-guide-to-outdoor-sports-this-summer-49b2c2bdf477>

<sup>21</sup> <https://www.nytimes.com/interactive/2020/04/14/science/coronavirus-transmission-cough-6-feet-ar-ul.html>



<b>(Personal Protection continued)</b>	<ul style="list-style-type: none"> <li>carriers</li> <li>Use of low quality/used masks and/or face shields have been found to be ineffective after prolonged usage for reducing exposure<sup>20</sup></li> <li>Inadequate access to sanitation</li> </ul>	<ul style="list-style-type: none"> <li>Mandatory use of effective masks<sup>22 23</sup></li> <li>Clear and obligatory hand sanitizing protocols<sup>24</sup></li> <li>Working side by side or back to back as opposed to face to face (in addition to social distancing)</li> <li>Daily testing</li> <li>Denying in-person participation in class to people testing positive for virus.</li> </ul>	<p>meters may not be sufficient for loud speaking or singing</p> <p>Unknown risk level: plexiglass partitions.<sup>25</sup></p>
<b>Course Content</b>	<ul style="list-style-type: none"> <li>Increased physical exertion<sup>2627</sup></li> <li>Activities which include touching physical person, objects, or surfaces<sup>28</sup></li> <li>Activities which disrupt social distancing protocols<sup>29</sup></li> <li>Activities which include loud speaking<sup>30</sup></li> <li>Working in close proximity to potential carriers</li> <li>Working face-to-face with potential carriers</li> </ul>	<p>See Part III for planning strategies based on content</p>	

<sup>20</sup> <https://bit.ly/3g33Q70>

<sup>22</sup> <https://www.erinbromage.com/post/what-s-the-deal-with-masks>

<sup>23</sup> <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html>

<sup>24</sup> [https://www.nytimes.com/2020/05/28/well/live/whats-the-risk-of-catching-coronavirus-from-a-surface.html?action=click&block=more\\_in\\_recirc&impression\\_id=957729580&index=2&pgtype=Article&region=footer](https://www.nytimes.com/2020/05/28/well/live/whats-the-risk-of-catching-coronavirus-from-a-surface.html?action=click&block=more_in_recirc&impression_id=957729580&index=2&pgtype=Article&region=footer)

<sup>25</sup> [https://www.jvoice.org/article/S0892-1997\(20\)30245-9/fulltext?fbclid=IwAR1waKuUbWIIJKtQ9Eb1fCEDMnUg6Kg\\_W7dH4oPPNRI-foskjDomIMRc33U#%20](https://www.jvoice.org/article/S0892-1997(20)30245-9/fulltext?fbclid=IwAR1waKuUbWIIJKtQ9Eb1fCEDMnUg6Kg_W7dH4oPPNRI-foskjDomIMRc33U#%20)

<sup>26</sup> [https://dance-usa.s3.amazonaws.com/page\\_uploads/COVID%20FAQ%20-%20MAY%202020.pdf](https://dance-usa.s3.amazonaws.com/page_uploads/COVID%20FAQ%20-%20MAY%202020.pdf)

<sup>27</sup> <https://elemental.medium.com/will-your-soccer-club-ever-meet-again-a-guide-to-outdoor-sports-this-summer-49b2c2bdf477>

<sup>28</sup> [https://www.nytimes.com/2020/05/28/well/live/whats-the-risk-of-catching-coronavirus-from-a-surface.html?action=click&block=more\\_in\\_recirc&impression\\_id=957729580&index=2&pgtype=Article&region=footer](https://www.nytimes.com/2020/05/28/well/live/whats-the-risk-of-catching-coronavirus-from-a-surface.html?action=click&block=more_in_recirc&impression_id=957729580&index=2&pgtype=Article&region=footer)

<sup>29</sup> <https://educatingthroughcrisis.org/meeting-students-and-families-needs/guidance-for-reopening-schools-covid/>

<sup>30</sup> <https://www.nature.com/articles/s41598-019-38808-z>



**Part III: Strategies, Considerations and Models for Voice and Speech Training in the time of COVID-19**

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## A. Terms:

Institutions and organizations use the terms listed below differently. In this document, the following definitions will apply.

Online Learning - The delivery of content using the internet. Online learning can occur within an in-person, hybrid, or remote course. Although in some instances, online learning refers to courses which operate asynchronously, within this document we will refer to such instances as “asynchronous.”

Remote Learning -The delivery of content solely delivered using the internet. The instructor and student are separated by distance. Although in some instances, remote learning refers to courses which operate synchronously via video conferencing, within this document we will refer to such instances as “synchronous.” Remote learning does not necessarily include a set start and end date or established assignment due dates.

The following models of learning are the safest option until there is an advancement of either a vaccine or treatment.

- Synchronous - Students encounter course material with the instructor at the same time via video conferencing (Skype, Zoom, Teams, etc.) Instructors may arrange to record synchronous classes so that students can access the content asynchronously.
- Asynchronous - Students encounter the course material at different times according to their own schedules. The instructor prepares course material and makes it available to students via an online platform (e.g. Blackboard, Canvas, etc). Asynchronous online learning follows an academic calendar.

The following models of learning introduce varying levels risk.

- In-person - Students encounter the course material in real time via face to face instruction at an agreed upon location
- Hybrid - Students encounter the course material in any combination of in-person and online content delivery
- Split synchronous – Some students encounter the course material in-person while others watch a synchronous live-stream. This set up requires video conferencing in the classroom.
- Split asynchronous - Some students encounter the course material in-person while others watch a recorded version asynchronously. This set up requires recording capabilities in the classroom.

Flipped classroom – Students encounter course material provided ahead of a class meeting which may occur in-person or synchronously via video conferencing in which reflection and discussion take place.



**B. Recognition of potential challenges and opportunities of synchronous and asynchronous learning**

While synchronous and asynchronous models are the safest option until there is advancement of either a vaccine or treatment, we recognize such models of learning can introduce significant challenges. Some of those challenges may include:

- A widening of equity and access gaps
- An increased sense of isolation for learners and instructors
- A decreased sense of ensemble among peer groups, particularly for incoming students
- Difficulty with scheduling for students participating in synchronous and in-person classes on the same day
- A decrease in traditional live theatre performance practice opportunities
- An increased workload for instructors in terms of preparation, student support, learning new technologies, and content creation

We recognize, however, that synchronous and asynchronous models also pose a number of potential opportunities. Those potential opportunities include:

<b>Synchronous</b>	<b>Asynchronous</b>	<b>Both</b>
<p>-An increased sense of privacy when students are working in their own space with guidance from an instructor can encourage deeper personal exploration.</p> <p>-An increased desire for connection can lead to stronger peer to peer feedback and sense of unique community.</p> <p>(continued next page)</p>	<p>-An increase in regular and frequent access to content. Students can move through content at their own pace.</p> <p>-An increase in student opportunity to review material throughout the semester.</p> <p>-An optimization of student autonomy and independence. Implementation of a personal practice and self-directed study becomes integral to the course.</p> <p>(continued next page)</p> <p>-A decrease or minimization of the threats and distractions of the classroom.</p>	<p>-An opportunity to innovate models of online learning which are equitable and accessible.</p> <p>-An increase in opportunities to explore intimate voice work, voiceover activities, listening skill development, and radio drama</p>





<p>-“The video and sound of live online tools create a distinct setting, a very special stage, where people can interact in a very direct way while they are still in their own private or working spaces (Bucksberg and Carter 2012; Crossley 2019).”<sup>31</sup></p> <p>-An opportunity to invite guest and instructors whose visits may have previously seemed limited by schedule and physical distance</p>	<p>-An increased sense of student agency with time.</p> <p>-An increased sense of flexibility for the learner.</p> <p>-An Increase in self-taping and self-diagnostic potential via more frequent video and audio recorded assignments.</p> <p>-One-to-one feedback and question and answer sessions can prove to be fruitful in an asynchronous online discussion space or in private messaging between student and teacher. Privacy can assist students in feeling compelled to ask questions and follow-up in ways which they may feel reticent to venture in front of a group.</p>	
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<sup>31</sup> <https://www.tandfonline.com/doi/full/10.1080/13569783.2020.1730169>



### C. “If/Then” Strategy Charts

The following chart includes strategies, ideas, and practice-based findings for a variety of situations.

#### COURSE CONTENT

IF...	THEN CONSIDER....
<b>Determining how much content can be covered</b>	<ul style="list-style-type: none"> <li>-Adjusting outcomes of class to the modes of delivery.</li> <li>-Creating syllabi that allow for extra time.</li> <li>-Employing flexibility to shift content as needed throughout the course.</li> </ul>
<b>Offering a session with protective masks</b>	<ul style="list-style-type: none"> <li>-Risk factors described in Part II including but not limited to: effectiveness of types of masks, use of social distancing, and class length.</li> <li>-Specifying what types of masks are to be used.</li> <li>-Planning breaks or easy access to an outdoor place where one can remove the mask in isolation should students become uncomfortable.</li> <li>-How breath is affected by the experience of wearing a mask.</li> <li>-Heat generated by the mask.</li> <li>-An increased possibility of muscle tension that may affect the jaw, tongue, abdominal muscles, muscles responsible for posture and alignment, etc.</li> </ul>
<b>Facial expressions or inner mouth details are needed during class</b>	<ul style="list-style-type: none"> <li>-An online format that may be more appropriate for the work:               <ul style="list-style-type: none"> <li>• Asynchronous: students and facilitator make use of self-taped video.</li> <li>• Synchronous: facilitator logs on to video conferencing with multiple devices, one of which can provide a closer look at the face or mouth.</li> </ul> </li> </ul>



<b>IF...</b>	<b>THEN CONSIDER...</b>
<b>Introducing embodied work for the first time online</b>	<ul style="list-style-type: none"> <li>-Communicating instructions for students including whether they should remain within frame or explore using their entire space.</li> <li>-Introducing imaginary balls that can be tossed from video box to video box.</li> <li>-Having some student videos “pinned” for mirror games</li> <li>-Typing an order of students’ names in the chat box to simulate the idea of being “next” in a line or in a circle.</li> </ul>

<b>IF...</b>	<b>THEN CONSIDER...</b>
<b>Self-diagnosis/self-reflection is key</b>	<ul style="list-style-type: none"> <li>-Creating relevant rubrics.</li> <li>-Requiring journals, practice logs or accountability charts.</li> <li>-Allowing for various modes of delivery or outcome (e.g. audio, drawing, written)</li> </ul>

<b>IF...</b>	<b>THEN CONSIDER...</b>
<b>Creating a discussion board</b>	<ul style="list-style-type: none"> <li>-Providing specific prompts which foster critical thinking.</li> <li>-Determining whether the discussion board is graded, ungraded, required, or optional.</li> <li>-Determining how much instructor involvement will be beneficial within the discussion.</li> <li>-Providing instructor responses which are a) swift, b) pertinent and c) move the lesson forward</li> </ul>

<b>IF...</b>	<b>THEN CONSIDER...</b>
<b>Increased peer to peer review is key</b>	<ul style="list-style-type: none"> <li>-Using asynchronous resources, e.g. FlipGrid, VidGrid, unlisted YouTube uploads</li> <li>-Using synchronous options, e.g. break out rooms via Zoom, discussion forums</li> </ul>

<b>IF...</b>	<b>THEN CONSIDER...</b>
<b>Focus is on live-streamed performance</b>	<ul style="list-style-type: none"> <li>-Using synchronous platforms, e.g. in Zoom, where single performer is “spotlighted”; or two-four performers are in gallery view while others observe</li> </ul>

<b>IF...</b>	<b>THEN CONSIDER...</b>
<b>Focus is on video performance recording</b>	<ul style="list-style-type: none"> <li>-For Performer: Self-taping options</li> <li>-For Audience: Synchronous or Asynchronous viewing of self-tapes</li> </ul>



**IF...****THEN CONSIDER...**

<b>Information content delivery is key</b>	-Asynchronous content which allows students to attend to it in their own time and review it regularly.
<b>Introducing explorative/experiential SOLO work is key</b>	- A flipped class structure which allows you to create a guided experience with a synchronous reflection/discussion.
<b>Introducing explorative/experiential GROUP work is key</b>	-Synchronous class meetings which most closely approximate an in-person experience.
<b>Practicing/reviewing experiential work is key</b>	-Break out rooms or assigned group meetings which allow small groups to work together and collaborate.
<b>Application of an exercise is key</b>	-Video software, e.g. Flipgrid or Vidgrid, which allow you to provide a self-diagnostic rubric to accompany a student-made video.
<b>Performance experience is key</b>	-Synchronous class meetings or synchronous watch-parties of student-made content which allow the class to serve as an audience.



## COURSE STRUCTURE

IF...	THEN CONSIDER...
<p><b>Planning Synchronous Class Meetings</b></p>	<ul style="list-style-type: none"> <li>-Advocating for smaller class sizes if possible.</li> <li>-Opening video conferencing rooms 10 minutes early for students to sign-in, arrive, and settle before class begins.</li> <li>-Including time to take a break from the screen and hydrate</li> <li>-Creating classroom protocols and expectations (e.g., use of video, mute, chat, appropriate dress)</li> <li>-Communicate whether the meeting will be recorded, who will have access to the recording, and who has right to record</li> <li>-Providing an alternate means of reaching the instructor should a student have difficulty logging on.</li> <li>-Taking the time to create “intimacy, trust, connection, the willingness to listen and to collaborate” the same way you would in an in-person setting.<sup>32</sup></li> <li>-Including a tutorial on technology in the course</li> <li>-Allowing time for physical and vocal exploration with sound muted and video off, then returning together for discussion.</li> <li>-Creating an “order” list in the chat box to facilitate switching from one person to another easily (e.g., when doing circle games or when performances should follow one another prior to feedback and discussion)</li> <li>-Planning for opportunities for small group work.</li> </ul>

IF...	THEN CONSIDER...
<p><b>Planning Asynchronous Content</b></p>	<ul style="list-style-type: none"> <li>-Ensuring access to communication with instructor is readily available.<sup>33</sup></li> <li>-Keeping content on one platform.</li> <li>-Delivering content in multiple formats - if utilizing video content or audio content, also include written instructions and vice versa. (See Universal Design for Learning “options for perception”<sup>34</sup>)</li> <li>-Keeping video content to digestible amounts.</li> <li>-Recording warm ups/exercises for students to return to regularly.</li> <li>-Providing online resources such as VSR articles, YouTube videos and webinars.</li> </ul>

<sup>32</sup> <https://www.tandfonline-com.libproxy.unl.edu/doi/full/10.1080/13569783.2020.1730169>

<sup>33</sup> <https://www.tandfonline.com/doi/full/10.1080/23268263.2020.1777691?scroll=top&needAccess=true>

<sup>34</sup> <http://udlguidelines.cast.org/representation/perception>



<b>Planning Asynchronous Content, cont.</b>	<ul style="list-style-type: none"> <li>-Establishing online discussion forums with clear guidelines, structure, and expectations.<sup>35</sup></li> <li>-Incorporating student-to-student peer-reviewed videos.</li> <li>-Creating accountability partners and/or practice logs.</li> <li>-Creating regular reminders about expectations, assignment due dates, evaluations.</li> <li>-Including a tutorial on technology in the course.</li> </ul>
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<b>IF... Scheduling for students who live in different time zones</b>	<b>THEN CONSIDER...</b> <ul style="list-style-type: none"> <li>-Always recording synchronous sessions.</li> <li>-Meeting students by appointment.</li> <li>-Expanding assignment delivery options.</li> </ul>
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<b>IF... Learning is contingent upon internet accessibility</b>	<b>THEN CONSIDER...</b> <ul style="list-style-type: none"> <li>-Researching institutional support for student internet needs.</li> <li>-Providing early support for learning in an online environment.</li> <li>-Arranging short check-ins with all students on a regular basis.</li> <li>-Adjusting grading expectations.</li> <li>-Arranging alternate methods of content delivery.</li> <li>-Ensuring that captioning and transcripts are available as well and any other accessibility considerations. (For information about how to do so, see the text box in the Technology section below.)</li> <li>-Contacting your tech support.</li> </ul>
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<sup>35</sup> "In terms of facilitating discourse, it is important to first provide clear participation requirements in terms of length, content expectations, and timeliness. Next, it is important to provide engaging questions, focus discussion, challenge and test ideas, model appropriate contributions, and ensure that the discourse is progressive. The central focus must be on students creating meaning and confirming understanding. Sustained teaching presence that encourages participation, but is not teacher centered, is crucial." [https://www.tandfonline.com/doi/10.1207/s15389286ajde1903\\_2](https://www.tandfonline.com/doi/10.1207/s15389286ajde1903_2)



## TECHNOLOGY

*\* If you are unfamiliar with some of the suggestions in this section, seek out your institution's help desk/IT support team. Using Google to search for these suggestions and typing in the device you are using will frequently lead you to a YouTube video that will walk you through the process.*

**IF... THEN CONSIDER...**

<b>Looking for devices or technological support</b>	-Contacting your institution for technological support. (Some universities are providing devices, e.g. laptops, cellular modems, to students in need.)
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**IF... THEN CONSIDER...**

<b>Broadband connection is intermittent or slow</b>	<ul style="list-style-type: none"> <li>-Checking your router:             <ul style="list-style-type: none"> <li>• Connecting directly to router by cable [increases speed and quality while decreasing latency].</li> <li>• If direct connection is not possible, move nearer to the router or Wi-Fi access point.</li> </ul> </li> <li>-Checking broadband connection and monitoring broadband speed, e.g. <a href="http://speedtest.net">speedtest.net</a>.</li> <li>-Checking with mobile data providers. Many are providing discounted coverage for students.</li> <li>-Location: Many video platforms, wired connections and the internet itself will create latency or noticeable lag. Connecting within locality [&lt;50miles] improves latency issues, which will improve working as ensemble, chorus or duologue work where reaction time is key.</li> <li>-Checking for better applications:             <ul style="list-style-type: none"> <li>• Some platforms, e.g. <a href="http://Jamkazam.com">Jamkazam.com</a> and <a href="http://soundjack.eu">soundjack.eu</a> may reduce lag and therefore improve perceivable performance synchronicity.</li> </ul> </li> <li>-Checking your use of bandwidth:             <ul style="list-style-type: none"> <li>• Close non-critical tabs and applications (email, calendar and reminders); background tasks such as online back-ups.</li> <li>• Negotiate with others in household to limit their internet use during class times.</li> </ul> </li> </ul>
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**IF... THEN CONSIDER...**

<b>Computer device is older or slow</b>	<ul style="list-style-type: none"> <li>-Minimizing computer tasks: It is advisable to keep windows, tabs, or apps open to a minimum; close any application that may be using device memory / processing power.</li> <li>-Upgrading hardware: Look into upgrading memory/RAM, storage, and/or device if possible.</li> </ul>
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**IF... THEN CONSIDER...**

<b>Audio needs to be clearer</b>	<ul style="list-style-type: none"><li>-Using one platform for video, e.g. Zoom<sup>36</sup>, and another application for audio, e.g. <u>Cleanfeed</u>, <u>Soundjack</u>.</li><li>-Using an appropriate additional microphone rather than the built in microphone on your device: (personal mic, headset or lavalier mic, or unidirectional mic).</li><li>-Using headphones: important to reduce “echo” or feedback; classic earbuds work well as a headset, often as well as more expensive equipment.</li></ul>
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**IF... THEN CONSIDER...**

<b>Audio cuts out when singing or sustaining sound on Zoom</b>	<ul style="list-style-type: none"><li>- Open the Audio settings in Zoom</li><li>- Click the “Advanced” button in the bottom right corner</li><li>- Check “Show in-meeting option to ‘Enable Original Sound’ from microphone</li><li>- Select “Disable” for both “Suppress Persistent Background Noise” &amp; “Suppress Intermitten Background Noise”.</li><li>- Leave “Echo Cancellation” on “Auto”.</li></ul> for more details see <a href="https://bit.ly/origsnd">https://bit.ly/origsnd</a>
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**IF... THEN CONSIDER...**

<b>Video needs to be clearer</b>	<ul style="list-style-type: none"><li>- Testing available technology to assure video and audio quality are appropriate for its role. Note that webcams built into laptops are often lower quality than those in phones.</li><li>- Using an external webcam, if using a computer.</li><li>- Using your smartphone camera rather than a desktop or laptop camera. Most are able to record to in HD video and audio. We recommend using landscape mode for best compatibility across platforms.</li><li>- Adjusting your lighting option. Using a ring light, setting up near a window, and being aware not to be backlit can have a big impact. Diffuse lighting if front-lit. Test what works best for you.</li><li>-Adjusting video resolution to 720p or 1080p.</li><li>-Connecting your video conferencing device to a large TV in order to see larger images of students in gallery view.</li></ul>
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<sup>36</sup> <https://zoom.us>





<b>IF...</b>	<b>THEN CONSIDER...</b>
<b>Instructor needs to be seen from different angles</b>	<ul style="list-style-type: none"> <li>- Logging on to synchronous sessions with two devices to give students multiple camera views onscreen. Only use one of the devices for sound. Mute speaker and microphone on the second device.</li> </ul>

<b>IF...</b>	<b>THEN CONSIDER...</b>
<p><b>Looking for captioning options</b></p> <p><b>Looking for captioning options, cont.</b></p>	<ul style="list-style-type: none"> <li>- Setting up live captioning in Zoom, MS Teams, Google Meet, etc. <ul style="list-style-type: none"> <li>• Zoom: A host can designate themselves or an alternate to type closed captions as the meeting progresses in real-time. A third-party service could be integrated that would provide live closed captioning at a cost. The closed captions are available with any recording once processed.</li> <li>• MS Teams and Google Meet have functions that will automatically caption all speech.</li> </ul> </li> <li>- Setting up transcribing options on Zoom, MS Teams, Google Meet, etc. <ul style="list-style-type: none"> <li>• Zoom: If you've recorded the session to the Cloud, an automatic transcription will be available after the recording is processed. When viewed online this is timed to the recording as it plays. If downloaded it's just a text file and no longer integrated with the recording directly.</li> </ul> </li> <li>-Posting videos to YouTube where they will be captioned automatically.</li> <li>-Using PowerPoint which has the ability to create captioning for your slides.<sup>37</sup> PowerPoint for Office365 can even auto translate if necessary.</li> </ul>

<b>IF...</b>	<b>THEN CONSIDER...</b>
<b>Recording sessions and receiving "out of storage space" notifications</b>	<ul style="list-style-type: none"> <li>- Move recordings to a cloud environment. Many institutions offer free cloud storage (OneDrive, GoogleDrive) to students.</li> <li>- Lower the resolution of the video to save storage space.</li> </ul>

<sup>37</sup> <https://bit.ly/captions4ppt>



## COURSE ENVIRONMENT

IF...	THEN CONSIDER....
<p><b>Students are working from home</b></p>	<ul style="list-style-type: none"> <li>-Providing opportunities for students to speak privately about their home environment and the compatibility of this environment for participation in class as well as personal practice.</li> <li>-Providing guidelines for setting up a work space at home including:                             <ul style="list-style-type: none"> <li>• physical changes they could make to the environment to create a work space</li> <li>• ways to create mental space for working</li> <li>• Lighting, sound, access for others to enter the room, in-frame backgrounds and privacy considerations, whether space to stand and move will be necessary.</li> </ul> </li> <li>-Advocating for alternatives within your institution for students who are uncomfortable or unable to practice in their own home.</li> <li>-Continuing instructor education on creating a welcoming online environment for ethnoculturally diverse students</li> </ul>
<p><b>Looking for larger spaces in which to mitigate in-person risk</b></p>	<ul style="list-style-type: none"> <li>-Creating covered outdoor spaces, such as large tents or pavilions.</li> <li>-Gaining access to gym facilities, volleyball courts, or basketball courts - Note that acoustics in these spaces may be challenging.</li> <li>-Reserving access to indoor swimming pool facilities where students can spread out around the edges of the pool. Note that ventilation and humidity research will be necessary.</li> <li>-Creating a hybrid structure where intimacy is optimized remotely and in-person class time addresses location-specific activities.</li> </ul>
<p><b>Planning to teach outside</b></p>	<ul style="list-style-type: none"> <li>-Checking the wind direction at your location in order to space students in a way that mitigates risk.</li> <li>-Creating a clear weather policy and communication system.</li> <li>-Developing lesson plans with noise, disturbances from campus, and frequent distractions in mind.</li> <li>-Designating break times with enough time to get to and from a rest room.</li> <li>-Sending reminders for students (and yourself!) to have sunscreen, insect repellent and appropriate weather gear.</li> </ul>



**IF...**

**THEN CONSIDER...**

<p><b>Fostering community/sense of ensemble</b></p>	<p>-Developing assignments around accountability strategies which bring pairs or small groups together between class sessions.</p> <p><u>Synchronous:</u></p> <ul style="list-style-type: none"><li>-Adopting check-ins at the start of class.</li><li>-Creating “Ritual” opening/endings of classes.</li><li>-Choosing to meet in small groups for discussions, feedback sessions, or work where a sense of community is needed</li><li>-Using breakout rooms for small group work (Note that you can set breakout groups in advance <a href="https://bit.ly/2YpscAx">https://bit.ly/2YpscAx</a>).</li><li>-Using the whiteboard sharing feature in Zoom/your platform for collaborative charting, drawing, or brainstorming a topic or concept.</li></ul> <p><u>Asynchronous</u></p> <ul style="list-style-type: none"><li>-Increasing opportunities for chat, either through forums in Learning Management Systems (LMS such as Moodle, Canvas, Blackboard, etc.) or via other asynchronous tools, such as Slack or Microsoft Teams.</li><li>-Encouraging students to coordinate partner/group work offline.</li></ul>
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**IF...**

**THEN CONSIDER...**

<p><b>Mitigating screen fatigue</b></p>	<p><u>Synchronous:</u></p> <ul style="list-style-type: none"><li>-Including exercises which take students away from the screen.</li><li>-Ending sessions early if all material has been covered.</li><li>-Including time to take a break from the screen within video sessions.</li></ul> <p><u>Asynchronous:</u></p> <ul style="list-style-type: none"><li>-Keeping videos to digestible lengths, ex. 10-15 minutes.</li><li>-Including interactive prompts for longer asynchronous materials, ex. “ready to go on?” or “this is a good time for a break.”</li></ul>
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**IF...**

**THEN CONSIDER....**

<p><b>Students are experiencing a lack of motivation, depression, or confusion</b></p>	<ul style="list-style-type: none"><li>-Reminding students of institution-provided support.</li><li>-Increasing check-ins.</li><li>-Extending deadlines.</li><li>-Introducing self-care or mindfulness activities.</li></ul>
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## **D) Sample Hybrid Teaching Syllabi**

In this section we aim to face challenges and heighten opportunities for those being asked to alternate between in-person and remote learning of Voice and Speech for performance. Where we encounter the weight of a challenge, we pursue the lift of discovery, possibilities, and presence.

Find below two sample syllabi which can be adopted for in-person, hybrid, synchronous, or asynchronous situations.

A few notes to keep in mind as you peruse:

- These syllabi were designed to address the immediate needs of an introductory level voice/speech course though their structure can be adapted for intermediate or advanced classes.
- The samples are intended to be supported and supplemented by an online learning management system (LMS, ex. Canvas, Blackboard, Moodle).
- These structures and content are not meant to be prescriptive but, rather, to spark creative solutions for anyone creating a flexible model for their classroom or studio.
- It is anticipated that, in addition to the structures outlined below, that all syllabi will include:

### 1. Course Information

- Course Description and Objectives
- Expectations and Grading
- Required Materials
- Optional Materials
- Institutional Language
- Self-Reporting/Accountability by student<sup>38</sup>

(continued on next page)

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<sup>38</sup> Sample rehearsal report provided by Jeremy Sortore:

[https://docs.google.com/document/d/1YHAKk1uAmNCUXnZ\\_5GNglbi7QS1KVZ6r7zdkGBnSHlo/edit](https://docs.google.com/document/d/1YHAKk1uAmNCUXnZ_5GNglbi7QS1KVZ6r7zdkGBnSHlo/edit)



2. The establishment of classroom and safety protocols based on Part II of this document

- Establish expectations for online interactions including student engagement within any LMS assignments and expectations for any synchronous class meetings.
- Address the importance of wearing a mask, other required PPE, and what kind of masks will best mitigate risk.
- If teaching in-person, establish a learning space based on safety guidelines in Part II including demarcation within the studio of social distancing and directions students should face. With 4-6 students in an average studio space, divide the time amongst students to rotate on a round-robin schedule.



Sample Syllabus 1:

This syllabus is designed to demonstrate a progressive sequence of material. This syllabus may serve as an adaptation of a more familiar approach to traditional studio-based work.

***Establishing Process; Releasing Performance***

Structure created by Matthew Rossoff

Based on an introductory ten-week term with two class sessions each week.

Recommended: Daily check-ins about the work, curiosities, and discoveries.

Student Assessment/Reflections: Select certain classes or explorations to write about. Offer flexible deadlines to support the increased online workload and learning process of the student.

<b>Week</b>	<b>Asynchronous</b>	<b>In-Person or Synchronous</b>	<b>Assignments</b>
<b>Week 1</b>	<p><u>Discussion</u> Introduction to the course including establishment of safety protocols. Time allotted to creating a welcoming environment.</p> <p><u>Exploration</u> -Individual assessment of alignment; 3 foundations: feet/ankles, pelvis, and shoulder girdle. -Roll down, with specificity to spine anatomy. -Physical Awareness, Kinesphere of Space, 3-dimensional breath space.</p>	<p><u>Discussion</u> -Breath awareness (anatomical function v. metaphor/image), in relation to wearing a mask in the studio. -Vocal Health and Hygiene, Voice Awareness, Voice Goals -Voice and speech associated with grounding/orienting and establishing presence.</p> <p><u>Exploration</u> -Feet, spine, roll downs with specificity to spin anatomy.</p>	Artist Statement or Voice/Breath Paper
<b>Week 2</b>	<p><u>Discussion</u> -General Physical Awareness: rib case, shoulder blades, and application of the diaphragm.</p>	<p><u>Discussion</u> -Introduce dropping in sound, Linklater’s Touch of Sound. -Encouraging sound moving beyond the mask and into the space.</p>	“Anatomy Salon” Individual Student Presentations



<b>(Week 2, cont.)</b>	<u>Exploration</u> "Stretch and Yawn" "Tossing the Breath" -- imaginary ball "Releasing Sounding"	<u>Exploration</u> -Floor work focusing on subtle body awareness: rib case, diaphragmatic breathing, sternum, intercostal exploration and expansion with breath. -Breath arrival into sounding impulse, seeing and being seen with colleagues in the room	
<b>Week 3</b>	<u>Exploration</u> -Experiential Anatomy of neck/shoulder relationship. -Open up the collarbones inviting 3-dimensional breath space. -Buzzing of the lips.	<u>Discussion</u> -Establish grounding practices and breath in a larger space. Considering relationship, environment, and given circumstances for a need to re-sound.  <u>Exploration</u> -Endowment of studio objects; sounding to the horizon. -Breath movement; seeing and being seen with colleagues in the room.	Self-care Reflection (create a haiku, sonnet, letter to self)
<b>Week 4</b>	<u>Exploration</u> -Jaw awareness; TMJ to Hyoid bone. -Buzzing of the lips to vibrations of sound through chest, pharynx, and nasal resonators.	<u>In-person Presentation</u> "Anatomy Salon" Student Presentations -Applying techniques of grounding/orienting; breath release, connection, and alignment. <u>Sync</u> if needed due to student circumstances (Include a video conferencing link for those not present in the studio).	Check-in process for student assessment and progress.
<b>Week 5</b>	<u>Exploration</u> -Explore the rib case/floating ribs in relationship to vowel sounds; waking up the tongue.	<u>Exploration</u> -Individual floor work explorations of back ribs expansion, occipital bone to sacrum. -Yoga movement: Cat, Cow, Child's Pose, and Frog increasing internal space for breath and sound.  -Breath release, intimacy to bigger sounding; place scene partner on the ceiling or sky.	Individual text work, ex. poetry





<b>(Week 5, cont.)</b>		-Inviting 3-dimensional body presence, movement, and breath.	
<b>Week Six</b>	<u>Exploration</u> -Introduce soft palate sensitivity and the beginning of articulation of sounding.	<u>Exploration</u> -Breath movement exploration onto sounding/articulation of tongue & lips onto assigned text.  <u>Text Discussion</u> Principle thought, word explorations, noun/verb breakdown.	
<b>Week Seven</b>	<u>Exploration</u> -Deepen channel resonators exploration to open sound of moving vibrations. -Create space for emotionally connected breath sounding.	<u>Exploration</u> -Resonators continued - into emotional connected sounding, free and organic range or motion. -Claiming space with sound, power, and presence. -"Personalization Web" I See, Hear, Touch, Taste, Smell, Feel, Think, Wonder, Want, Am.  Individual Coaching	Self-care Reflection (Intention and goal setting for the remainder of the term, time management awareness)
<b>Week Eight</b>	<u>Exploration</u> -Facial resonators; buzzing of the falsetto, prominence of sound, power, and articulation -Introduce mic play (Vocal Prominence)	Individual Coaching	
<b>Week Nine</b>	<u>Exploration</u> -Articulation work -Mic play; explore neutral scenes with vocal prominence	<u>Exploration</u> Open sounding and release; Individual coaching  Individual Coaching	
<b>Week Ten</b>	<u>Exploration</u> Review warm-up progression; Student driven, Teacher facilitates exploration.	<u>Exploration</u> Self-guided warm-up; Student driven, Teacher facilitates exploration.	Final showing of text exploration



Sample Syllabus #2:

This syllabus is designed to demonstrate a flexible, modular approach which may be completed in sequence or out of sequence. While the modular syllabus requires advance building of the online classroom by the instructor, it can give students agency to determine their own pace and sequencing.

A modular system may also assist instructors at this time in the following ways:

- Should a student fall ill, a modular structure allows a student to take the class at the pace their recovery allows.
- Students without frequent access to wi-fi, ability to stream, or the ability to attend synchronous classes will have access to progress through the coursework without being tied to a direct sequence.

**Modular Hybrid or Pivot to Online Syllabus**

Structure created by Amy Chaffee

Based on anywhere from an 8 week to 15 week term

Designed to be used with Canvas, Blackboard, Moodle or similar Learning Management System (LMS) and 100% Paperless.

<p><b>Module One</b></p> <p>“Breathing is Meaning.” - Catherine Fitzmaurice</p> <ul style="list-style-type: none"><li>• <b>Grounding</b></li><li>• <b>Breathwork</b></li><li>• <b>Awareness</b></li></ul>	<p><b>1.A Learning Activities</b> <i>(in-person, synchronous, or asynchronous)</i></p> <ul style="list-style-type: none"><li>• Teacher-led Exercises, <i>breath and awareness</i></li><li>• Group led exercises:<ul style="list-style-type: none"><li>☞ <i>Introduce Yourself!</i></li><li>☞ <i>(In Person) Follow the leader</i></li><li>☞ <i>(In Person, Synch, Asynch) Experiential Discovery of the Ribs, Spine, Tongue, Oral Passage, Breath Mechanism</i></li><li>☞ <i>(Synch) Resonance on mic close, on mic far away – play with discovery of the nature of sound on computer/phone</i></li><li>☞ <i>(Asynch) Explore different available resonance spaces (shower? Tunnel? Garage?) to record your voice in</i></li><li>☞ <i>(Asynch) Begin exploration of the right place to do this work for class. Record video or audio</i></li><li>☞ <i>(Asynch) Record a series of breaths – intakes (sharp, slow, small, huge), exhales (audible, inaudible, fry, small vocal gestures) get the class to respond to them, first written, then record their own responses – there are no wrong answers!</i></li></ul></li></ul>
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<p><b>(Module One, cont.)</b></p>	<p>⌘ (synch) Explore ingressive speaking (fun!), then the same sentence on an egressive breath, using the same tempo</p> <p>Reading/Lecture/Video instruction (Instructor-provided content or student exploration based on written directions)</p> <p><b><u>1.B</u> Discussion Threads<sup>39</sup></b></p> <ul style="list-style-type: none"> <li>• Community building prompts <ul style="list-style-type: none"> <li>⌘ <i>Introduce Yourself!</i></li> </ul> </li> <li>• Self-discovery prompts: <ul style="list-style-type: none"> <li>⌘ <i>What is a thrilling voice? - Personal Goals</i></li> </ul> </li> <li>• Discussion prompts based on activities, assignments and materials: <ul style="list-style-type: none"> <li>⌘ <i>Introduction to experiential awareness. How does it feel to be asked?</i></li> <li>⌘ <i>Experiential Anatomy Overview</i></li> <li>⌘ <i>Response to Voice Health Information - Surprises? What parts of the body do you think make up voice? What parts do you experience?</i></li> <li>⌘ <i>Response to materials about breath - "You cannot live without breathing - without air. Your breath is the source of your life as well as your vocal sound." - K. Linklater</i></li> </ul> </li> </ul> <p><b><u>1.C</u> Assignments</b></p> <ul style="list-style-type: none"> <li>• Scavenger Hunt on LMS to get people oriented and using the whole site</li> <li>• Reading: <i>Cazden's "Everyday Vocal Health"</i></li> <li>• Individual journaling/reflection - OR- make a video recording of a practice session of your own voice exploration (less than 3 minutes).</li> </ul>
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<sup>39</sup> This course structure utilizes online discussion forums. Discussion forums can be created through online learning management systems and can increase the sense of “community” that is missing online. They can also be a great leveler for those who might not “voice” in class but feel more comfortable posting questions in written form. At the same time, forums can feel like “forced” connection. Here are some ways to combat that:

Create activities on the Discussion board that are personal - both collaborative and/or competitive.

Discussion boards can also be a space for games or creative uses by small groups. Students can post memes and other responses that increase relationship to the voice concept being taught.

To increase student-teacher interactivity, a teacher’s response on discussion forums should be a) swift, b) pertinent and c) move the lesson forward. (e.g. comments like “very good” or “correct” on a discussion board tend to stop communication and discourage engagement.



<p><b>(Module One, cont.)</b></p>	<p>☞ <i>In your journal write minimum of three paragraphs describing your breath and how it defines you as a person and your world and how you communicate. Keep it personal, no generalities!</i></p> <p><b><u>1.D Supplementary Materials</u></b></p> <ul style="list-style-type: none"> <li>• Videos</li> <li>• Reading: <i>Fitzmaurice's "Breathing is Meaning"</i> , Chapter 2 of Linklater's <i>Freeing the Natural Voice</i></li> <li>• Exercises demonstrated live or on video from readings based on either the Fitzmaurice or Linklater reading</li> </ul>
<p><b>Module Two: Movement Creates Sound</b></p> <p>"The sound, availability, and focus of the human voice really matter... we hope for a voice that touches us with care, that is direct, clear, free and connected to us." - Patsy Rodenburg</p> <ul style="list-style-type: none"> <li>• <b>Shape</b></li> <li>• <b>Gesture</b></li> <li>• <b>Impulse</b></li> <li>• <b>Dropping In</b></li> <li>• <b>Resonance</b></li> </ul> <p><b>(Module Two, cont.)</b></p>	<p><b><u>2.A Learning Activities</u></b> (<i>in-person, synchronous, or asynchronous</i>)</p> <ul style="list-style-type: none"> <li>• Teacher-led experiential exercises, <i>introduction to Deconstructing or Touch of Sound work</i></li> <li>• Group-led exercises, <i>Jaw, Tongue, soft palate, spine, oral passage, Tempo, space, Architecture, topography (viewpoints are super fun in a remote learning situation because no two spaces the students are learning in are the same – and can cause many different discoveries of voice)</i></li> <li>• Reading/Lecture/Video instruction (Instructor-provided content or student exploration based on written directions)</li> </ul> <p><b><u>2.B Discussion Threads</u></b></p> <ul style="list-style-type: none"> <li>• Community building prompts: <ul style="list-style-type: none"> <li>☞ <i>What did you have to do to adjust in your environment (get creative!)</i></li> </ul> </li> <li>• Self-discovery prompts: <ul style="list-style-type: none"> <li>☞ <i>What did you not like? What challenges feel scary or like you don't want to do them again? What can you do to soften around that fear? Type it here, you don't have to do it. Just put your mind, fingers and heart around it here. Be kind to yourself and others in this question, these are not easy exercises for everyone.</i></li> </ul> </li> <li>• Discussion prompts based on activities, assignments and materials: <ul style="list-style-type: none"> <li>☞ <i>What discoveries have you made about your treatment of your vocal mechanism? What would you like to adopt as a new habit? What old habit are you not going to lose? What do you want to do with your voice now that you know the best way to care for it?</i></li> <li>☞ <i>What exercises have you enjoyed the most doing in the Linklater book, so far? Why/Why not?</i></li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>• Student-instructor relationship building: <i>Create a space for students to ask questions</i></li> </ul> <p><b><u>2.C</u> Assignments</b></p> <ul style="list-style-type: none"> <li>• Reading: <i>Rodenberg's "Every Day Vocal Health", Chapters 3-6 of Linklater's Freeing the Natural Voice</i></li> <li>• Individual journaling/reflection - OR- make a how-to video to explore vocal variety</li> </ul> <p><b><u>2.D</u> Supplementary Materials</b></p> <ul style="list-style-type: none"> <li>• Videos</li> <li>• Readings</li> <li>• Exercises from Readings</li> </ul>
<p><b>Module Three</b></p> <p>"We are training...an intrinsic sensing process where energy qualities are physically felt and perceived" - Arthur Lessac</p> <ul style="list-style-type: none"> <li>• <b>Orienting</b></li> <li>• <b>Listening</b></li> <li>• <b>Three-dimensionality</b></li> </ul> <p><b>(Module Three, cont.)</b></p>	<p><b><u>3.A</u> Learning Activities:</b> <i>(in-person, synchronous, or asynchronous)</i></p> <ul style="list-style-type: none"> <li>• Teacher-led experiential exercises - <i>Linklater Sound and Movement work, Skinner Releasing, Perception/reception before expression</i></li> <li>• Group-led exercises - <i>Paul Sills Story Theatre Exercises, exploration of three dimensionality in a remote setting, exploration of space, imagery and sensory work</i></li> <li>• Reading/Lecture/Video instruction (Instructor-provided content or student exploration based on written directions)</li> </ul> <p><b><u>3.B</u> Discussion Threads</b></p> <ul style="list-style-type: none"> <li>• Community building prompts <ul style="list-style-type: none"> <li>⊘ <i>Sound and movement thread: wake up your body and then record a sound a movement in response to the most recent recording.</i></li> </ul> </li> <li>• Self-discovery prompts: <ul style="list-style-type: none"> <li>⊘ <i>What areas of your kinesphere are most accessible? What areas seem less accessible?</i></li> <li>⊘ <i>What challenges do you want to try again and why?</i></li> </ul> </li> <li>• Discussion prompts based on activities, assignments and materials: <ul style="list-style-type: none"> <li>⊘ <i>When do you find that you are in first, second, or third circle in your daily life? What about in rehearsal?</i></li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>• Student-instructor relationship building: <i>Create a space for students to ask questions</i></li> </ul>



	<p><b>3.C Assignments</b></p> <ul style="list-style-type: none"> <li>• Reading: <i>Chapters 1-4 and 11 “Listening” of P. Rodenburg’s Second Circle</i></li> <li>• Online resources which describe Stanislavski’s definition of “Circles of Inclusion” and/or Michael Chekhov’s “Radiance”</li> <li>• Individual journaling/reflection on listening - OR- Video a practice session of your own Voice exploration (less than 3 minutes)</li> </ul> <p><b>3.D Supplementary Materials</b></p> <ul style="list-style-type: none"> <li>• Videos</li> <li>• Readings</li> <li>• Exercises from Readings</li> </ul>
<p><b>Module Four</b></p> <p>“Think, as we progress, of breath and sound as Iris’ rainbow carrying truthful feelings that will be articulated by an obedient tongue into words faithful to their origin.” - Kristin Linklater</p> <ul style="list-style-type: none"> <li>• <b>Connection</b></li> <li>• <b>Support</b></li> <li>• <b>Power</b></li> </ul> <p><b>(Module Four, cont.)</b></p>	<p><b>4.A Learning Activities</b> (<i>in-person, synchronous, or asynchronous</i>)</p> <ul style="list-style-type: none"> <li>• Teacher-led experiential exercises - connection of “breath to thought”, length of breath, need and idea released on vibration, <i>hands on your own body to experience the breath, Lessac Call Work “Hellooo” for distance, What is your mark? Who is your partner? What is your action/Objective?</i></li> <li>• Group led exercises, distance exercises, <ul style="list-style-type: none"> <li>∅ Asynchronous - Make a video or audio using different acoustic spaces and give three “need” prompts e.g. 1. Asking to borrow the car, 2. Begging for forgiveness, 3. Stopping someone from walking in front of a bus - what sort of support do you need? Where do you feel it? What muscles do you need and what don’t you?</li> <li>∅ Synchronous - explore the prompts above via the computer, phone, or lav mic.</li> <li>∅ In-person – explore the prompts above in a variety of spaces at a variety of distances</li> </ul> </li> <li>• Reading/Lecture/Video instruction (Instructor-provided content or student exploration based on written directions)</li> </ul> <p><b>4.B Discussion Threads</b></p> <ul style="list-style-type: none"> <li>• Community building prompts <ul style="list-style-type: none"> <li>∅ <i>How do articulation muscles play into power and support? Are they just icing on the cake or do you feel that they have some element of creating authority and increasing range?</i></li> </ul> </li> <li>• Self-discovery prompts:</li> </ul>



	<ul style="list-style-type: none"> <li>⚡ <i>What do you feel when you want to make a “big announcement?” Where do you feel the energy? What do you feel stops you from being effective? When did you last feel “really heard” by someone?</i></li> <li>⚡ <i>What challenges do you want to try again and why?</i></li> <li>• Discussion prompts based on activities, assignments and materials: <ul style="list-style-type: none"> <li>⚡ <i>What is the best method for creating healthy support based on the reading texts given in the course so far?</i></li> </ul> </li> <li>• Student-instructor relationship building: <ul style="list-style-type: none"> <li>⚡ <i>What is confusing about the concepts of “Support” Or “Connection” or “power” in relationship to voice? What does shouting do? Can you ask me a question either with voice... or in writing... about this that is bothering you?</i></li> </ul> </li> </ul> <p><b><u>4.C Assignments</u></b></p> <ul style="list-style-type: none"> <li>• Individual journaling/reflection - OR- Video a practice session of your own Voice exploration (less than 3 minute)</li> <li>• Patsy Rodenburg’s video on 2nd Circle to connect to power and the need to impinge on another</li> <li>• You Tube Video of Pavarotti singing “Nessun Dorma”</li> <li>• Is “power” always aggressive? Find three art examples that are not aggressive in a war-like manner but aggressively creation-based.</li> </ul> <p><b><u>4.D Supplementary Materials</u></b></p> <ul style="list-style-type: none"> <li>• Videos</li> <li>• Readings</li> <li>• Exercises from Readings</li> </ul>
<p><b>Module Five</b></p> <p>“Voice is the audible manifestation of a state of Being” - Richard Armstrong</p>	<p><b><u>5.A Learning Activities</u></b> <i>(in-person, synchronous, or asynchronous)</i></p> <ul style="list-style-type: none"> <li>• Teacher-led Exercises, <i>text analysis, personalization</i> <ul style="list-style-type: none"> <li>⚡ <i>(In Person or synch) Coaching</i></li> <li>⚡ <i>(In Person or synch) Led exploration of pitch, resonance, oral posture and exploration of distance</i></li> </ul> </li> </ul>



<ul style="list-style-type: none"> <li>• Text</li> <li>• Song</li> <li>• Personalization</li> </ul> <p><b>(Module Five, cont.)</b></p>	<ul style="list-style-type: none"> <li>⊘ <i>(Asynch) - assign a series of short videos that are to be produced exploring the above and creating a group product of the text, perhaps.</i></li> <li>• Group led exercises <ul style="list-style-type: none"> <li>⊘ <i>(In Person or synch) Student led warm up,</i></li> <li>⊘ <i>(Asynch) Pairs demonstrate exploration of song to text and text to song on impulse of partner recorded over zoom. Using visuals to cue changes. (up, down, sing, speak)</i></li> <li>⊘ <i>Great speaker exercise using text from historical orators, not dramatic text.</i></li> </ul> </li> <li>• Reading/Lecture/Video instruction</li> </ul> <p><b><u>5.B Discussion Threads</u></b> <i>(online)</i></p> <ul style="list-style-type: none"> <li>• Community building prompts <ul style="list-style-type: none"> <li>⊘ <i>Who are the great speakers of our present moment? What makes them powerful?</i></li> </ul> </li> <li>• Self-discovery prompts: <ul style="list-style-type: none"> <li>⊘ <i>Why this text?</i></li> <li>⊘ <i>What is the song about for you? Why did you choose it?</i></li> </ul> </li> <li>• Discussion prompts based on activities, assignments and materials: <ul style="list-style-type: none"> <li>⊘ <i>What discoveries did you make in your text after applying the Berry reading to your text?</i></li> </ul> </li> <li>• Student-instructor relationship building: <i>Create a space for students to ask questions</i></li> </ul> <p><b><u>5.C Assignments</u></b> <i>(in-person, synchronous, or asynchronous)</i></p> <ul style="list-style-type: none"> <li>• Reading Cicely Berry's <i>The Voice and The Actor</i></li> <li>• Individual journaling - OR-</li> <li>• Video a practice session of your own Voice exploration (less than 3 minute)</li> <li>• Creating a short video of your piece in a variety of spaces</li> </ul> <p><b><u>5.D Supplementary Materials</u></b> <i>(online)</i></p> <ul style="list-style-type: none"> <li>• Videos</li> <li>• Readings</li> </ul>
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|  | <ul style="list-style-type: none"><li>• Exercises from Readings</li><li>• Full Texts ( Shakespeare etc.)</li></ul> |
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## Appendix A: Research Documentation

Article	Author	Credentials/ Affiliations	Notes	Link
Identifying airborne transmission as the dominant route for the spread of COVID-19	Renyi Zhang, Yixin Li, Annie L. Zhang, Yuan Wang, and Mario J. Molina	Proceedings of the National Academy of Sciences of the United States of America	<p>"Our results show that the airborne transmission route is highly virulent and dominant for the spread of COVID-19."</p> <p>"Within an enclosed environment, virus-bearing aerosols from human atomization are readily accumulated, and elevated levels of airborne viruses facilitate transmission from person to person. Transmission of airborne viruses in open air is subject to dilution, although virus accumulation still occurs due to stagnation under polluted urban conditions"</p> <p>"the importance of airborne transmission has not been considered in establishment of mitigation measures by government authorities (1, 20). Specifically, while the WHO and the US Centers for Disease Control and Prevention (CDC) have emphasized the prevention of contact transmission, both WHO and CDC have largely ignored the importance of the airborne transmission route"</p>	<a href="https://bit.ly/2YkI9Ky">https://bit.ly/2YkI9Ky</a>
The Risks - Know Them - Avoid Them	Erin Bromage	Comparative Immunologist and Professor of Biology (specializing in Immunology) at the University of Massachusetts Dartmouth.	<p>"Indoor spaces, with limited air exchange or recycled air and lots of people, are concerning from a transmission standpoint."</p> <p>"Social distancing guidelines don't hold in indoor spaces where you spend a lot of time"</p> <p>"The principle is viral exposure over an extended period of time. In all these cases, people were exposed to the virus in the air for a prolonged period (hours). Even if they were 50 feet away (choir or call center), even a low dose of the virus in the air reaching them, over a sustained period, was enough to cause infection and in some cases, death. "</p>	<a href="https://bit.ly/3dh8NXT">https://bit.ly/3dh8NXT</a>
What's the deal with Masks?	Erin Bromage	Comparative Immunologist and Professor of Biology (specializing in Immunology) at the University of Massachusetts Dartmouth.	<p>"Indoor spaces allow for the virus to accumulate in the air if there is not adequate air filtration and exchange."</p> <p>"In indoor environments with poor air exchange and filtration, the infected respiratory droplets can spread throughout the room, build up in the air, and, after a sufficient length of time, people sharing that space can inhale enough of a viral load to become infected. However, with mask use, the respiratory emissions are lowered, and you are provided with a greater period of time before reaching an infectious dose."</p> <p>A Cough: A single cough releases about 3,000 droplets and droplets travels at 50 miles per hour. Most droplets are large, and fall quickly (gravity), but many do stay in the air and can travel across a room in a few seconds.</p>	<a href="https://bit.ly/2NgGcrf">https://bit.ly/2NgGcrf</a>

Article	Author	Credentials/ Affiliations	Notes	Link
Reducing transmission of SARS-CoV-2	Kimberly A. Prather, Chia C. Wang, Robert T. Schooley	<p>1Scripps Institution of Oceanography, University of California San Diego, La Jolla, CA 92037, USA.</p> <p>2Department of Chemistry, National Sun Yat-sen University, Kaohsiung, Taiwan 804, Republic of China.</p> <p>3Aerosol Science Research Center, National Sun Yat-Sen University, Kaohsiung, Taiwan 804, Republic of China.</p> <p>4Department of Medicine, Division of Infectious Diseases and Global Public Health, School of Medicine, University of California San Diego, La Jolla, CA 92093, USA.</p>	<p>"The U.S. Centers for Disease Control and Prevention (CDC) recommendations for social distancing of 6 ft and hand washing to reduce the spread of SARS-CoV-2 are based on studies of respiratory droplets carried out in the 1930s."</p> <p>"SARS-CoV-2 may also be transmitted through aerosols."</p> <p>"Increasing evidence for SARS-CoV-2 suggests the 6 ft CDC recommendation is likely not enough under many indoor conditions where aerosols can remain airborne for hours, accumulate over time, and follow air flows over distances further than 6 ft"</p> <p>"The distance from a smoker at which one smells cigarette smoke indicates the distance in those surroundings at which one could inhale infectious aerosols. In an enclosed room with asymptomatic individuals, infectious aerosol concentrations can increase over time. Overall, the probability of becoming infected indoors will depend on the total amount of SARS-CoV-2 inhaled. Ultimately, the amount of ventilation, number of people, how long one visits an indoor facility, and activities that affect air flow will all modulate viral transmission pathways and exposure"</p>	<a href="https://bit.ly/37P5eHn">https://bit.ly/37P5eHn</a>
How COVID-19 Spreads	Centers for Disease Control and Prevention	CDC	"The virus is thought to spread mainly from person-to-person through respiratory droplets produced when an infected person coughs, sneezes, or talks."	<a href="https://bit.ly/2Bw8H1i">https://bit.ly/2Bw8H1i</a>

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Estimation of airborne viral emission: Quanta emission rate of SARS-CoV-2 for infection risk assessment	G.Buonanno(ab) L.Stabile(a) L.Morawsk(ab)	a: Department of Civil and Mechanical Engineering, University of Cassino and Southern Lazio, Cassino, FR, Italy b: International Laboratory for Air Quality and Health, Queensland University of Technology, Brisbane, Qld, Australia	"...high quanta emission rates (>100 quanta h <sup>-1</sup> ) can be reached by an asymptomatic infectious SARS-CoV-2 subject performing vocalization during light activities (i.e. walking slowly) whereas a symptomatic SARS-CoV-2 subject in resting conditions mostly has a low quanta emission rate (<1 quantum h <sup>-1</sup> )." "a key role is played by proper ventilation in containment of the virus in indoor environments."	<a href="https://bit.ly/2YIP6u0">https://bit.ly/2YIP6u0</a>
The coronavirus pandemic and aerosols: Does COVID-19 transmit via expiratory particles?	Sima Asadi (a), Nicole Bouvier (b), Anthony S. Wexler (c), and William D. Ristenpart (a)	aDepartment of Chemical Engineering, Davis College of Engineering, University of California, Davis, California, USA; bDepartments of Medicine and Microbiology, Icahn School of Medicine at Mount Sinai, New York, New York, USA; cMechanical and Aeronautical Engineering, University of California—Davis, Davis, California, USA	"speech plausibly serves as an important and under-recognized transmission mechanism for COVID-19"	<a href="https://bit.ly/37QMJS">https://bit.ly/37QMJS</a> <a href="#">M</a>

Article	Author	Credentials/ Affiliations	Notes	Link
Airborne transmission of SARS-CoV-2: The world should face the reality	Lidia Morawska (a) Junji Cao (b)	a: International Laboratory for Air Quality and Health (ILAQH), School of Earth of Atmospheric Sciences, Queensland University of Technology, Brisbane, Queensland 4001, Australia b: Key Lab of Aerosol Chemistry & Physics (KLACP), Chinese Academy of Sciences, Beijing, China	"The fact that there are no simple methods for detecting the virus in the air does not mean that the viruses do not travel in the air. " "Considering the many similarities between the two SARS viruses and the evidence on virus transport in general, it is highly likely that the SARS-CoV-2 virus also spreads by air"	<a href="https://bit.ly/2zV5Sqq">https://bit.ly/2zV5Sqq</a>
Rapid Expert Consultation on the Possibility of Bioaerosol Spread of SARS-CoV-2 for the COVID-19 Pandemic (April 1, 2020)	Harvey V. Fineberg	M.D., Ph.D., Chair, Standing Committee on Emerging Infectious Diseases and 21st Century Health Threats	"Currently available research supports the possibility that SARS-CoV-2 could be spread via bioaerosols generated directly by patients' exhalation."	<a href="https://bit.ly/3dnmnt0">https://bit.ly/3dnmnt0</a>
After 6 Months, Important Mysteries About Coronavirus Endure		NYT	"Here are some of the things we don't know yet: The amount of virus it takes to make you sick"	<a href="https://nyti.ms/3hOwDhd">https://nyti.ms/3hOwDhd</a>
Droplets and Aerosols in the Transmission of SARS-CoV-2	Matthew Meselson, Ph.D.	Harvard University	"Aerosols from infected persons may therefore pose an inhalation threat even at considerable distances and in enclosed spaces, particularly if there is poor ventilation."	<a href="https://bit.ly/2NkhjLn">https://bit.ly/2NkhjLn</a>
Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1		NEJM	"Our results indicate that aerosol and fomite transmission of SARS-CoV-2 is plausible, since the virus can remain viable and infectious in aerosols for hours and on surfaces up to days"	<a href="https://bit.ly/2Bwafs8">https://bit.ly/2Bwafs8</a>
When the Office Is Like a Biohazard Lab	David Gelles	NYT	"“One of the biggest reasons for going back into the offices is so people can collaborate,” Mr. Underhill said. “But when the whole premise is to stay away from people and wear masks, it challenges the very reasons why people would be coming back.”" "“Coming back is for social interaction and collaboration,” Mr. Falzon said.	<a href="https://nyti.ms/3dpbs1M">https://nyti.ms/3dpbs1M</a>

Article	Author	Credentials/ Affiliations	Notes	Link
			"If people have to stay six feet apart and have to wear masks, why are we bringing them back?"	
Advice on the use of masks in the context of COVID-19		WHO		<a href="https://bit.ly/2NkaVDI">https://bit.ly/2NkaVDI</a>
CDC Activities and Initiatives Supporting the COVID-19 Response and the President's Plan for Opening America Up Again		CDC		<a href="https://bit.ly/2YkZFxd">https://bit.ly/2YkZFxd</a>
When Will It Be Safe to Sing Together Again?	Matthias Echternach	NYT	"aerosols simply hit the shield, then spread out around it and into the room"	<a href="https://nyti.ms/3eISkTV">https://nyti.ms/3eISkTV</a>
Aerosol emission and superemission during human speech increase with voice loudness	Sima Asadi, Anthony S. Wexler, Christopher D. Cappa, Santiago Barreda, Nicole M. Bouvier & William D. Ristenpart		"rate of particle emission during normal human speech is positively correlated with the loudness (amplitude) of vocalization" "a small fraction of individuals behaves as "speech superemitters," consistently releasing an order of magnitude more particles than their peers"	<a href="https://go.nature.com/3dnnVmO">https://go.nature.com/3dnnVmO</a>
CDC Quickly Changed Its Guidance On Limiting Choirs At Religious Services		NPR	""Consider suspending or at least decreasing use of a choir/musical ensembles and congregant singing, chanting, or reciting during services or other programming, if appropriate within the faith tradition. The act of singing may contribute to transmission of COVID-19, possibly through emission of aerosols."" "But that wording disappeared over the weekend, apparently because the White House had not approved it."	<a href="https://n.pr/2Yo5oCF">https://n.pr/2Yo5oCF</a>
NATS Panel of Experts Lays Out Sobering Future for Singers: "No Vaccine, No Safe Public Singing"		NATS	"there is no safe way for singers to rehearse together until there is a COVID-19 vaccine and a 95% effective treatment in place, in her estimates at least 18-24 months away." "There is no spacing solution for singing groups that would eliminate risk." "Masks don't provide safe methods of singing"	<a href="https://bit.ly/37QOrUc">https://bit.ly/37QOrUc</a>
Considerations for Reintegrating Into the Dance Studio		The Dance Docs		<a href="https://bit.ly/3dnrNnA">https://bit.ly/3dnrNnA</a>

Article	Author	Credentials/ Affiliations	Notes	Link
Talking Can Generate Coronavirus Droplets That Linger Up to 14 Minutes		NYT	"Talking can also launch thousands of droplets so small they can remain suspended in the air for eight to 14 minutes, according to a new study."	<a href="https://nyti.ms/3dny5Ug">https://nyti.ms/3dny5Ug</a>
The airborne lifetime of small speech droplets and their potential importance in SARS-CoV-2 transmission	Valentyn Stadnytskyi, Christina E. Bax, Adriaan Bax, and Philip Anfinrud		"Speech droplets generated by asymptomatic carriers of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) are increasingly considered to be a likely mode of disease transmission. Highly sensitive laser light scattering observations have revealed that loud speech can emit thousands of oral fluid droplets per second. In a closed, stagnant air environment, they disappear from the window of view with time constants in the range of 8 to 14 min, which corresponds to droplet nuclei of ca. 4 μm diameter, or 12- to 21-μm droplets prior to dehydration. These observations confirm that there is a substantial probability that normal speaking causes airborne virus transmission in confined environments."	<a href="https://bit.ly/3ez46dL">https://bit.ly/3ez46dL</a>
COVID-19 FAQ for Dancers and Dance Companies Returning to the Studios		Dance USA Task Force on Dancer Health	"A mask will make it harder to breathe during exercise initially and dancers should self-monitor for symptoms of: lightheadedness, dizziness, numbness or tingling, and shortness of breath " " "Sharing the same air for longer than 10 minutes increases the chances of exposure and infection." "Social distancing is hard to maintain in the dance environment due to partnering, choreography, and close formation spacing. Significant modification may be required "	<a href="https://bit.ly/COVID_Dance">https://bit.ly/COVID_Dance</a>
High SARS-CoV-2 Attack Rate following Exposure at a Choir Practice	Lean Hamner, Polly Dubbel, Ian Capron, Andy Ross, Amber Jordan, Jaxon Lee, Joanne Lynn, Amelia Ball, Simranjit Narwal, Sam Russell, Dale Patrick, Howard Leibrand	CDC		<a href="https://bit.ly/3ekPA96">https://bit.ly/3ekPA96</a>

Article	Author	Credentials/ Affiliations	Notes	Link
Where have all the singers gone, and when will they return? Prospects for Choral Singing after the SARS-CoV-2 Pandemic	Martin Ashley	ABCD Choral Directions Research / European Choral Association	<p>Extensive pulling together of information from European Choral Singers group, including further links over how they are dealing with the pandemic. The term “COVID-19” is the one in popular usage to refer to the pandemic, although the correct medical name for the virus responsible is SARS-CoV-2, which is more indicative of the relationship with previous forms of coronavirus for which no immunity exist ed. SARS-CoV-2 differs from previous coronaviruses in that, whilst less lethal to individuals than, for example MERS, the SARS-CoV-2 appears unusually contagious and, for reasons not yet fully understood, both highly variable and unpredictable in how it affects individuals. Effects range between asymptomatic infection through mild flu -like symptoms to respiratory or multi-organ failure and death. It is also difficult to control the spread because it is carried by asymptomatic individuals – people who feel and appear perfectly healthy. Critically, Lai and colleagues established that over 97% of particles emitted during vuvuzela playing or shouting were between 0.5 and 5 µm in diameter. This would class them as aerosols. An aerosol particle is defined as invisible to the eye, typically 1 µm in diameter (Papineni and Rosenthal, 1997). Aerosols tend to remain suspended in the atmosphere for some time as opposed to particles larger than 5 µm which fall to the ground over distances that can be mapped and predicted by testing. Lindsley et al (2009) undertook significant work on the size of the expelled particles that carry the virus, identifying particles with a mean diameter 13.5 µm for coughing and 16.0 µm for speaking. This appears to disagree with Lai et al’s stress on smaller particles and is where worrying uncertainty begins. A study published in 2019 before the current pandemic investigated the effects of “non-dramatic” events upon airborne infectious disease transmission. “Dramatic events” were considered to be coughing and sneezing. Normal speech as an additional carrier of respiratory pathogens was found to be positively correlated with amplitude (the volume at which people were speaking or shouting). Contamination ranged from 1 to 50 particles per second according to the extent the voice was projected. In other words, as the vocal folds are excited more vigorously, aerosol transmission increases rapidly by as much as fifty-fold. Singing would appear to be at least as harmful in this respect as loud speech or shouting, possibly more so. Nelson concluded that there is not yet a full consensus on whether the SARS-CoV-2 can be transmitted as a live virus in aerosol. She did, however, concede that</p>	<a href="https://bit.ly/2NheM4r">https://bit.ly/2NheM4r</a>



Article	Author	Credentials/ Affiliations	Notes	Link
			aerosols could be “very, very efficient carriers of the virus” and that any choir might have amongst its members an unknown, random “super spreader”. She was against the use of face masks on the grounds already suggested above as well as difficulties with breathing, particularly for older people. Legal issues as to whether churches could compel the wearing of masks would appear to have been raised in the United States. The position in the UK on this issue is as yet unclear.	
The central question when making music in corona time: can the virus spread through the air?	Dr. ir. Ivo Bouwmans (TU Delft): research coordination and website; support by experts in transport phenomena and system modelling • Prof. dr. ir. Bert Blocken (TU/e): aerosol studies • Jos van der Sijde (RPhO): Coordination on behalf of Dutch music organisations • Advisors virology: prof. dr. Louis Kroes (LUMC) and prof. dr. Rogier Sanders (UvA)	Virmus NL serving musicians	The large droplets are likely to cause the majority of infections [2]. But everyone knows by now that we can avoid those drops, because it is established that they usually fall to the ground within about a meter and a half [3].	<a href="https://bit.ly/2Nhi9ID">https://bit.ly/2Nhi9ID</a>

Article	Author	Credentials/ Affiliations	Notes	Link
How far droplets can move in indoor environments – revisiting the Wells evaporation–falling curve	Dr Yuouo Li	Department of Mechanical Engineering, The University of Hong Kong	Science behind indoor droplet distances and evaporation from speech and coughs; The present study only considered the exhalation jet flows without considering the room airflow field. Our results indicate that a droplet's size predominately dictates its evaporation and movement after being expelled. The sizes of the largest droplets that would totally evaporate before falling 2m away are determined under different conditions.	<a href="https://bit.ly/3dfIC40">https://bit.ly/3dfIC40</a>
Face masks for the general public	Comittee for Royal Society	Royal Society Delve initiative	<u>In addition to events such as coughs and sneezes producing respiratory emissions, speech has also been found to produce substantial numbers of droplets capable of containing respiratory pathogens<sup>15</sup>. To this effect, several studies have assessed the usefulness of different types of masks in mitigating emissions from an individual to the environment. Masks made from cloth or household materials have been found to filter pathogens less effectively than surgical masks, with efficiency estimates relative to surgical masks ranging from approximately 70% in a study using bacteria and bacteriophage<sup>41</sup>, to approximately 50% in a study of airborne particles<sup>42</sup>.</u>	<a href="https://bit.ly/2NgLB1F">https://bit.ly/2NgLB1F</a>
Natural Ventilation for Infection Control in Health-Care Settings.	WHO	WHO	<u>" Even a patient simply sitting in or beside the bed will create air temperature differences from their body heat. A higher air temperature directly above the patient's head (or body, if lying down) will create convective air currents that may entrain potentially infectious air from neighbouring spaces into the higher temperature column rising air above the patient (Craven &amp; Settles, 2006). Patients lying in bed, breathing or sleeping, may produce exhaled airflows that can reach the airspace of a patient in the neighbouring bed, and even further in the presence of certain types of ventilation systems (see below) (Qian et al., 2006). In the same way, other mechanical devices, including fans, televisions and medical equipment, may also disturb nearby airflows and disseminate air from nearby patients to the rest of the ward. "</u> There is much more in the master document that this section comes from!	<a href="https://bit.ly/37OUmJy">https://bit.ly/37OUmJy</a>
Number of coronavirus (COVID-19) cases worldwide as of June 15, 2020, by country	John Elflein	<a href="https://www.statista.com">Statista.com</a>	World COVID figures updated daily in graphs	<a href="https://bit.ly/37OLd3D">https://bit.ly/37OLd3D</a>
Coronavirus (COVID-19) deaths worldwide per one million population as of June 15, 2020, by country	Raynor de Best	<a href="https://www.statista.com">Statista.com</a>	Deaths per million updated daily per country	<a href="https://bit.ly/2Yi8bwP">https://bit.ly/2Yi8bwP</a>

Article	Author	Credentials/ Affiliations	Notes	Link
COVID-19: guidance on shielding and protecting people defined on medical grounds as extremely vulnerable	UK Government	UK Gov	It's for situations where a clinically extremely vulnerable person is living at home, with or without additional support. This includes clinically extremely vulnerable people living in long-term care facilities for the elderly or people with special needs.	<a href="https://bit.ly/3ez59ud">https://bit.ly/3ez59ud</a>
'The Safe Way Forward' Joint Report from the DGA, SAG-AFTRA, IATSE, and Teamsters	DGA SAG AFTRA Teamsters IATSE	Multi-union report	"The Unions and Guilds quickly determined that a comprehensive, mandatory testing regimen would need to be the cornerstone of a safe return to production in a pre-vaccine landscape. Without testing, the entire cast and crew would be working in an environment of unknown risk." Full Report: <a href="https://bit.ly/2NiG1eZ">https://bit.ly/2NiG1eZ</a>	<a href="https://bit.ly/3dl6XF1">https://bit.ly/3dl6XF1</a>
Getting the Coronavirus Twice Is Highly Unlikely (in the Short Term)	Markham Heid	<a href="#">Writer for - incl research links Medium.com</a>	"The test is not designed to pick up the live virus," he explains. "It's really designed to detect the presence of nucleic acids." These nucleic acids — which are snippets of the virus's genetic information — may persist in a person's body even when the virus itself is no longer alive and able to infect others. In other words, the "re-positive" test results were actually false positives.	<a href="https://bit.ly/2YmTLM9">https://bit.ly/2YmTLM9</a>
Will Your Soccer Club Ever Meet Again? A Guide to Outdoor Sports This Summer.	<a href="https://elemental.medium.com/@christie.asch?source=post_page-----49b2c2bdf477-----">https://elemental.medium.com/@christie.asch?source=post_page-----49b2c2bdf477-----</a>	<a href="#">Writer for - incl research links Medium.com</a>	The risk posed by any particular activity, sporting events included, comes down to a few important factors: proximity to other people, the intensity of the exposure (breathing hard and talking loudly increases the risk of spreading respiratory droplets), and time. Even if it's outdoors, basketball is high risk, because you're throwing a ball back and forth and breathing hard in close proximity to one another.	<a href="https://bit.ly/37OBMRI">https://bit.ly/37OBMRI</a>
Coronavirus May Be a Blood Vessel Disease, Which Explains Everything	Dana G Smith	Senior Writer for Elemental @ Medium covering health, science, and the science of wellness	If Covid-19 is a vascular disease, the best antiviral therapy might not be antiviral therapy	<a href="https://bit.ly/3dpM2RI">https://bit.ly/3dpM2RI</a>
Use of Cloth Face Coverings to Help Slow the Spread of COVID-19	<a href="#">Content source: National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases</a>	<a href="#">Content source: National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases</a>	<u>While people who are sick or know that they have COVID-19 should isolate at home, COVID-19 can be spread by people who do not have symptoms and do not know that they are infected. That's why it's important for everyone to practice social distancing (staying at least 6 feet away from other people) and wear cloth face coverings in public settings. Cloth face coverings provide an extra layer to help prevent the respiratory droplets from traveling in the air and onto other people.</u>	<a href="https://bit.ly/2YivID6">https://bit.ly/2YivID6</a>

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How Can You Tell the Difference Between Anxiety and COVID-19 Symptoms?	Renée Fabian is the features editor at The Mighty.	blog	<u>Anxiety and panic can cause physical symptoms that may resemble early COVID-19 symptoms, including shortness of breath and even chills or aches and pains like you have the flu.</u>	<a href="https://bit.ly/3emUoe1">https://bit.ly/3emUoe1</a>
Guidance on voice and upper airway disorders in the context of COVID-19 in adult and paediatric services	Multiple NHS involvement	Royal College of Speech and Language Therapists (RCSLT)	Flow chart: SUGGESTED CARE PATHWAY FOR SLT MANAGEMENT OF UPPER AIRWAY DISORDERS IN LIGHT OF COVID-19	<a href="https://bit.ly/2NilExn">https://bit.ly/2NilExn</a>
Expecting Students to Play It Safe if Colleges Reopen Is a Fantasy	Laurence Steinberg	Dr. Steinberg is a professor of psychology at Temple University and the author of "Age of Opportunity: Lessons From the New Science of Adolescence."	I look forward to a time when we are able to return to campus and in-person teaching. But a thorough discussion of whether, when and how we reopen our colleges and universities must be informed by what developmental science has taught us about how adolescents and young adults think. As someone who is well-versed in this literature, I will ask to teach remotely for the time being.	<a href="https://nyti.ms/2zVbDEy">https://nyti.ms/2zVbDEy</a>
Coronavirus Resource Centre	Harvard Health Publishing	Harvard Medical School	Based on what we know about the contagiousness of the COVID-19 virus, experts estimate that somewhere between 60% and 70% of the population needs to be immune in order to achieve herd immunity. That's close to 200 million people in the United States, and nearly five billion people worldwide. (As of now, we are nowhere close to the numbers needed to achieve herd immunity.)	<a href="https://bit.ly/2NfjGtV">https://bit.ly/2NfjGtV</a>
All Hands on Deck: Initial Guidance Regarding Reopening School Buildings		National Education Association	Most important factors in considering reopening are: health and safety based on science ("Testing capacity in the United States remains inadequate and uneven. This is especially true in under-resourced communities"), Educator voices participating in all levels of decision making, institution-provided protection (we must ensure that all students and educators continuously funded access to PPE") and the need to "lead with equity." Includes a 15-point checklist at the bottom of the article	<a href="https://bit.ly/3dmE4cf">https://bit.ly/3dmE4cf</a>
Stay 6 Feet Apart, We're Told. But How Far Can Air Carry Coronavirus?	Knvul Sheikh, James Gorman and Kenneth Chang	NYT	"If the aerosols that people exhale in other settings are significant in spreading the disease, the six-foot distance would not be completely protective because those are carried more easily by air currents."	<a href="https://nyti.ms/2NiKxKs">https://nyti.ms/2NiKxKs</a>

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This 3-D Simulation Shows Why Social Distancing Is So Important		NYT	<p>"In fact, researchers at M.I.T. studying coughs and sneezes observed particles from a cough traveling as far as 16 feet and those from a sneeze traveling as far as 26 feet."</p> <p>"An infected person talking for five minutes in a poorly ventilated space can produce as many viral droplets as one infectious cough. "If there are 10 people in there, it's going to build up," said Pratim Biswas, an aerosols expert at Washington University in St. Louis."</p>	<a href="https://nyti.ms/2Nuwc eh">https://nyti.ms/2Nuwc eh</a>
A physicist view of the airborne infection	Luis A. Anchordoqui, Eugene M. Chudnovsky	Cornell University	<p>"In the presence of air resistance, compact heavy objects fall to the ground quickly, while light objects exhibit Brownian motion and follow the pattern of turbulent convection of the air. For aerosol particles containing the virus, the boundary between these two behaviors depends on the size of the particle."</p> <p>"From the physics point of view, we cannot find a good justification for a stationary 6-feet separation in a situation when people spend long time together in a room. Droplets containing the virus move in the air via convection. The convection pattern in a room can be very complex; see Fig. 1. It depends on the location of air conditioners, radiators, windows, and all items in the room, as well as on people producing vortices by moving around. The existing vortices in the air can make a location far away from the source of droplets more dangerous than the location 6 feet away"</p>	<a href="https://bit.ly/3ez9dKZ">https://bit.ly/3ez9dKZ</a>
Temperature, Humidity, and Latitude Analysis to Estimate Potential Spread and Seasonality of Coronavirus Disease 2019 (COVID-19)	Mohammad M. Sajadi, MD; Parham Habibzadeh, MD; Augustin Vintzileos, PhD	Journal of the American Medical Association	In this study, the distribution of substantial community outbreaks of COVID-19 along restricted latitude, temperature, and humidity measurements were consistent with the behavior of a seasonal respiratory virus; with modeling, it may be possible to estimate areas at high risk of substantial community transmission of COVID-19.	<a href="https://bit.ly/2AW9VD h">https://bit.ly/2AW9VD h</a>

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The Urgency and Challenge of Opening K-12 Schools in the Fall of 2020	Joshua M. Sharfstein, MD; Christopher C. Morphey, PhD	Journal of the American Medical Association		<a href="https://bit.ly/2YSY68Q">https://bit.ly/2YSY68Q</a>
Airborne Spread of SARS-CoV-2 and a Potential Role for Air Disinfection	Edward A. Nardell, MD; Ruvandhi R. Nathavitharana, MD, MPH	Journal of the American Medical Association	Other than natural or mechanical ventilation, only 2 practical methods of air disinfection exist: room air cleaners (ie, using filters, UV, or other means of disinfection) and upper-room germicidal UV (GUV) fixtures (see eFigure in the Supplement). For effective air disinfection, ventilation with 6 to 12 room air changes per hour is recommended by the CDC. <sup>2</sup> This can be achieved with natural ventilation under favorable outdoor conditions and by mechanical ventilation systems designed for such high-flow rates—but at high operating costs when intake air must be heated or cooled and dehumidified. Portable room air cleaners may be a potential solution, but depending on room volume, their specified clean air delivery rates generally add too few equivalent air changes per hour to provide adequate protection against airborne infection. In contrast, commercially available upper-room GUV air disinfection (with an effective rate of air mixing) has been shown, in clinical settings, to reduce airborne tuberculosis transmission by 80%, equivalent to adding 24 room air changes per hour.	<a href="https://bit.ly/2BrgPjW">https://bit.ly/2BrgPjW</a>
A Harm-Reduction Approach to Coronavirus Disease 2019 (COVID-19)—Safer Socializing	Eric Kutscher, MD; Richard E. Greene, MD, MHPE	Journal of the American Medical Association	A harm-reduction approach to COVID-19 reflects what we saw in Central Park: going places with substantial space and air circulation, staying 6 feet apart, wearing facemasks when closer than 6 feet, and performing frequent hand hygiene. <sup>6</sup> It also requires staying inside if individuals have a fever, other COVID-19 symptoms, or a recent exposure to an individual with COVID-19. All decisions in a harm-reduction approach must be thoughtful, intentional, and negotiated. We must obtain the consent of our social partners before any interaction and establish guidelines for safety. We must not judge others who come to different conclusions about what risk is tolerable to them.	<a href="https://bit.ly/2CuxymT">https://bit.ly/2CuxymT</a>

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Coronavirus: Could social distancing of less than two metres work?	David Shukman  Science editor	BBC	<p>A crowded stuffy room is bound to increase the chances of infection.</p> <p>The direction of air flow is also crucial - whether a draught or fan behind someone infected is pushing any virus they breathe out towards you.</p> <p>And a good supply of fresh air can make all the difference.</p> <p>Plastic screens are suggested along with moving to shift patterns of work to minimise the numbers in at any one time.</p> <p>Arranging seating so people are not face to face is also judged to help.</p>	<a href="https://bbc.in/37QXuow">https://bbc.in/37QXuow</a>
No hymns, no Communion: Germany's reopened churches offer a road map, but a new outbreak shows the risks	ERIK KIRSCHBAUM	LA Times	<p>But hopes for a smooth return to churchgoing suffered a setback when word emerged of an outbreak centered on the congregation of a Baptist church in Frankfurt after a May 10 service.</p> <p>Of 180 worshipers in attendance, up to 130 became infected, according to German news reports. Those reportedly hospitalized included the church's leader and his deputy.</p>	<a href="https://lat.ms/3erDY4g">https://lat.ms/3erDY4g</a>
Episode 33: Risk Assessment for Group Activities with Dr. Amesh Adalja of Johns Hopkins Center for Health Security	Dr. Amesh Adalja	Choralosophy Podcast, Johns Hopkins		<a href="https://bit.ly/2NfzCBp">https://bit.ly/2NfzCBp</a>
Singing Safely in the COVID Era	Lee Reussner MD	Kansas Voice Center	Series of three YouTube broadcasts	<a href="https://youtu.be/jY_HueZBRNg">https://youtu.be/jY_HueZBRNg</a>  <a href="https://youtu.be/JM1msYMn5vA">https://youtu.be/JM1msYMn5vA</a>

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				<a href="https://youtu.be/mMJXpRUkg0o">https://youtu.be/mMJXpRUkg0o</a>
Your Building Can Make You Sick or Keep You Well	<p>Joseph Allen (@j_g_allen) is director of the Healthy Buildings program at Harvard T.H. Chan School of Public Health and a co-author of “Healthy Buildings: How Indoor Spaces Drive Performance and Productivity.” While Dr. Allen has received funding for research through various companies, foundations and nonprofit groups in the building industry, none had any involvement in this article.</p>	NY Times	There is also ample evidence that viruses survive better at low humidity — precisely what happens during winter, or in the summer in air-conditioned spaces.	<a href="https://nyti.ms/2BxG9oc">https://nyti.ms/2BxG9oc</a>
What’s the Risk of Catching Coronavirus From a Surface?	<p>Tara Parker-Pope is the founding editor of Well, The Times’s award-winning consumer health site. She won an Emmy in 2013 for the video series</p>	NY Times	<p>“There’s a long chain of events that would need to happen for someone to become infected through contact with groceries, mail, takeout containers or other surfaces,” said Julia Marcus, an infectious disease epidemiologist and assistant professor in the department of population medicine at Harvard Medical School. “The last step in that causal chain is touching your eyes, nose or mouth with your contaminated hand, so the best way to make sure the chain is broken is washing your hands.”</p>	<a href="https://nyti.ms/2zVbKQl">https://nyti.ms/2zVbKQl</a>



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	“Life, Interrupted” and is the author of “For Better: The Science of a Good Marriage.” @taraparkerpope			
What Bus Transit Operators Need to Know About COVID-19	NCIRD	Content source: National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases	CDC recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain, especially in areas of significant community-based transmission. Cloth face coverings may prevent people who don’t know they have the virus from transmitting it to others. These face coverings are not surgical masks or respirators and are not appropriate substitutes for them in workplaces where masks or respirators are recommended or required.	<a href="https://bit.ly/37SBVni">https://bit.ly/37SBVni</a>
Simulating COVID Spread in College Setting	<a href="#">Lilah Burke</a>	<a href="https://www.insidehighered.com">insidehighered.com</a>	"If students aren't inclined to forgo optional social contact, that's the kind of thing that can overwhelm any kind of mitigation strategies," Gressman said. "There's a lot of talk about what's going to go on in the classroom and are they going to put up barriers and things like that. That stuff is really important, but one of the takeaways should be, 'It's time to move the conversation forward.' Because it doesn't matter what you do in the classroom if you don't manage all those other aspects as well."	<a href="https://bit.ly/384EIPO">https://bit.ly/384EIPO</a>
Everyone Thinks They’re Right About Masks How the coronavirus travels through the air has become one of the most divisive debates in this pandemic.	Ed Yong	ED YONG is a staff writer at The Atlantic, where he covers science.	Then there are shared spaces like hallways, stairwells, and elevators in apartment buildings. Elevators pose the highest risk, Bourouiba told me, since they’re enclosed boxes with limited airflow. For stairwells and hallways, she advocated a commonsense approach: “If you hear neighbors going out, and there are 10 people in the corridor right now, maybe wait and go later.”	<a href="https://bit.ly/38997r0">https://bit.ly/38997r0</a>
Watch: It’s not just the lungs: The Covid-19 virus attacks like no other ‘respiratory’ infection				<a href="https://bit.ly/2AfuZ7n">https://bit.ly/2AfuZ7n</a>
Risk Assessment for freelance performers returning to work during COVID-19	British Association for Performing Arts Medicine			<a href="https://bit.ly/2NE66VU">https://bit.ly/2NE66VU</a>

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Estimation of COVID-19 airborne transmission	<a href="#">Prof. Jose L Jimenez, Dept. of Chem. and CIRES, Univ. of Colorado-Boulder</a>		<a href="https://cires.colorado.edu/news/covid-19-airborne-transmission-tool-available">https://cires.colorado.edu/news/covid-19-airborne-transmission-tool-available</a>	<a href="https://bit.ly/2YKJNUQ">https://bit.ly/2YKJNUQ</a>
CBS Evening News segment about the role of aerosols in the spread of the SARS-CoV-2 virus	Professor Kimberly Prather, PhD, Distinguished Chair in Atmospheric Chemistry at UC San Diego			<a href="https://bit.ly/2AfvHI3">https://bit.ly/2AfvHI3</a>
Coronavirus Face Masks: What You Should Know		<a href="https://www.webmd.com">WebMD.com</a>	<p>A cloth face mask won't totally block the coronavirus. But it's an added layer of protection for you and the people around you when you use it along with regular handwashing and social distancing measures like staying 6 feet away from others.</p> <p>Research has found that "quilter's cotton" filters out a lot of particles, especially tight weaves with thicker threads, such as batik. Masks with cotton outer layers and flannel inner layers also work well.</p> <p>Masks may trap particles of the coronavirus. That's why the CDC recommends them. The virus could then spread if you touch the mask and don't wash your hands afterward.</p>	<a href="https://wb.md/3eDgZDw">https://wb.md/3eDgZDw</a>
Here's what WHO says your mask should have to prevent COVID-19 spread	Beth Mole	<a href="#">Health Reporter, arsTechnica</a>	<p>The WHO determined that a minimum of three layers is required for fabric masks. But, masks may need more, depending on the fabric used. For instance, folding cotton handkerchiefs into four layers still only led to maximum filtration efficiency of 13 percent, the WHO noted. Notably, the homemade masks recommended by the US CDC only have two or three layers of cotton.</p> <p>Van Kerkhove noted in the press conference that "the evidence we have through this research is that, with those three layers and in that combination, that fabric [masks] can actually provide a mechanistic barrier. If someone were infected with COVID-19, it could prevent those droplets from going through and infecting someone else."</p>	<a href="https://bit.ly/2Ze8f08">https://bit.ly/2Ze8f08</a>

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Coronavirus disease (COVID-19) advice for the public: When and how to use masks		<a href="https://www.who.int/">World Health Organization</a>	Outlines materials, how to use masks, preferred mask materials, types of masks, WHO recommendations for mask usage	<a href="https://bit.ly/3dGdOcf">https://bit.ly/3dGdOcf</a>
Paging Dr. Hamblin: Can AC Spread the Coronavirus?	James Hamblin, MD	Staff writer at The Atlantic. He is also a lecturer at Yale School of Public Health and author of the forthcoming book Clean: The New Science of Skin.	<p>The airborne spread of the coronavirus has been well documented. Famously, outbreaks have emerged from choir practices and other indoor gatherings, with infection rates so uniquely high that it's unlikely everyone got infected by touching the same surface. Over a long period in an enclosed space, it seems, singing can spew virus into the air until it accumulates to the point of danger for people who are well over six feet away.</p> <p>Once a virus is hanging in the air—and we know that the coronavirus can linger for hours—it will travel with air currents. One ominous study of a restaurant in Guangzhou, China, documented how air-conditioning appeared to spread the virus between tables at opposite sides of the room. The issue wasn't that the virus was traveling through the air-conditioning unit, but that it was getting pushed around the room by the stream of air. The takeaway is that while airflow is good when it's coming from open windows, it could make things worse when it's coming from an AC unit that's blowing air around a closed room. Coughing in a well-ventilated room is sort of like peeing in a river as opposed to a hot tub: Ideally you wouldn't do either, but one is definitely worse.</p> <p>In light of the pandemic, various professional organizations have issued new recommendations for building ventilation, but how widely they'll be followed is unclear. The fixes aren't actually groundbreaking: They're mostly things that everyone was supposed to be doing all along, such as ensuring that bathrooms have exhaust fans and that air filters are changed regularly and of high-enough quality to catch the virus. That means they should be high-efficiency particulate air (HEPA) filters or MERV-rated 13 or 14, which are essentially the N-95 masks of air filters.</p> <p>Without more stringent government protections, the best you can do while traveling is look for third-party certifications such as LEED or WELL. Buildings that have gone through those certification processes are guaranteed to have ventilation systems that go well beyond the typical standards.</p>	<a href="https://bit.ly/2BF1nRg">https://bit.ly/2BF1nRg</a>

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COVID-19 (CORONAVIRUS) PREPAREDNESS RESOURCES		ASHRAE	<p>Transmission of SARS-CoV-2 through the air is sufficiently likely that airborne exposure to the virus should be controlled. Changes to building operations, including the operation of heating, ventilating, and air-conditioning systems, can reduce airborne exposures.</p> <p>Ventilation and filtration provided by heating, ventilating, and air-conditioning systems can reduce the airborne concentration of SARS-CoV-2 and thus the risk of transmission through the air. Unconditioned spaces can cause thermal stress to people that may be directly life threatening and that may also lower resistance to infection. In general, disabling of heating, ventilating, and air-conditioning systems is not a recommended measure to reduce the transmission of the virus.</p>	<a href="https://bit.ly/2BM6a3y">https://bit.ly/2BM6a3y</a>
Scientists Consider Indoor Ultraviolet Light to Zap Coronavirus in the Air	Kenneth Chang	NY Times	<p>In the approach scientists like Dr. Nardell describe, fixtures mounted on walls or ceilings, similar to fluorescent lights used today, shine ultraviolet light across the top of an interior space, well above people's heads. Ceiling fans are sometimes installed to draw air upward so that floating bacteria, viruses and fungi are zapped more quickly. A different frequency of ultraviolet might be even safer, even when it shines directly on people, which would also allow disinfection of surfaces.</p>	<a href="https://nyti.ms/3eMalKy">https://nyti.ms/3eMalKy</a>
Considerations for Wearing Cloth Face Coverings		Centers for Disease Control	<p>Cloth face coverings are recommended as a simple barrier to help prevent respiratory droplets from traveling into the air and onto other people when the person wearing the cloth face covering coughs, sneezes, talks, or raises their voice. This is called source control. This recommendation is based on what we know about the role respiratory droplets play in the spread of the virus that causes COVID-19, paired with emerging evidence from clinical and laboratory studies that shows cloth face coverings reduce the spray of droplets when worn over the nose and mouth. COVID-19 spreads mainly among people who are in close contact with one another (within about 6 feet), so the use of cloth face coverings is particularly important in settings where people are close to each other or where social distancing is difficult to maintain.</p>	<a href="https://bit.ly/2YKP4fg">https://bit.ly/2YKP4fg</a>

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Are you wearing your face mask properly? Many people aren't, coronavirus experts say	Don Sweeney	Sacramento Bee/WHO	<p>...surgical masks, whether store-bought or homemade, don't protect the wearer against the COVID-19 virus, the CDC says. But face masks can help prevent infected people from spreading the virus, even if they have no symptoms — prompting the change.</p> <p>"So it's not going to protect you, but it is going to protect your neighbor," said infectious disease specialist Dr. Daniel Griffin at Columbia University, NPR reported.</p> <p>HOW OFTEN SHOULD I CHANGE FACE MASKS? Change your face mask as soon as it becomes damp, and don't reuse disposable masks, WHO says.</p>	<a href="https://bit.ly/3g33Q70">https://bit.ly/3g33Q70</a>
ULTRAVIOLET AIR AND SURFACE		ASHRAE	<p>Ultraviolet (UVC) energy to inactivate viral, bacterial, and fungal organisms so they are unable to replicate and potentially cause disease. UVC energy disrupts the deoxyribonucleic acid (DNA) of a wide range of microorganisms, rendering them harmless (Brickner et al. 2003; CIE 2003). Early work established that the most effective UV wavelength range for inactivation of microorganisms is between 220 and 280 nm, with peak effectiveness near 265 nm. The standard source of UVC in commercial systems is low-pressure mercury vapor lamps, which emit mainly near-optimal 253.7 nm UVC. Use of germicidal ultraviolet (UV) lamps and lamp systems to disinfect room air and air streams dates to about 1900 (Reed 2010). Riley (1988) and Shechmeister (1991) wrote extensive reviews of UVC disinfection. Application of UVC is becoming increasingly frequent as concerns about indoor air quality increase. UVC is now used as an engineering control to interrupt the transmission of pathogenic organisms, such as Mycobacterium tuberculosis (TB), influenza viruses, mold, and potential bioterrorism agents (Brickner et al. 2003; CDC 2002, 2005; GSA 2010; McDevitt et al. 2008; Rudnick et al. 2009).</p>	<a href="https://bit.ly/2AdtUgi">https://bit.ly/2AdtUgi</a>

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Safer Singing During the SARS-COV-2 Pandemic: What We Know and What We Don't	Matthew R. Naunheim, MD MBA, Jonathan Bock, MD, Philip A. Doucette, MM, MA CCC-SLP, Ingo R. Titze, PHD...	Journal of Voice	<p>Article provides 11 recommendations for best practices as we know them</p> <p>"...evidence-based practice (defined as an approach to health that integrates scientific research, patient preferences and values, and clinical expertise to make the best recommendations possible) does not allow a definitive conclusion [about whether it's safe for singers to rehearse together prior to a vaccine or treatment] to be made at this time."</p> <p>Personal protective equipment helps prevent virus spread</p> <p>Although very little definitive data exist for SARS-CoV-2, a systematic review considering other similar viruses demonstrated that physical distancing of 1 meter or more led to a significant 82% decrease in viral transmission, with protection increasing as the distance lengthened (risk decreased by half with each 1m interval studied)</p> <p>It should be acknowledged that beyond the issues with speaking and singing leading to SARS-CoV-2 transmission as presented in this paper, the inability of the performer to wear a mask to deliver an effective and emotive performance will be a difficult, if not insurmountable, obstacle to returning to live theatre as it is known in the Western world without substantial concessions.</p> <p>Future studies are needed to determine if plexiglass shields between a teacher and student, singing with or without masks, reduce disease transmission in otherwise closed spaces.</p>	<a href="https://www.jvoice.org/article/S0892-1997(20)30245-9/fulltext?fbclid=IwAR1waKuUbWlJKtQ9Eb1fCEDMnUg6Kg_W7dH4oPPNRI-foskjDomlMRc33U#%20">https://www.jvoice.org/article/S0892-1997(20)30245-9/fulltext?fbclid=IwAR1waKuUbWlJKtQ9Eb1fCEDMnUg6Kg_W7dH4oPPNRI-foskjDomlMRc33U#%20</a>

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Preliminary Results of Performing Arts Aerosol Study Depict Hopeful Outlook for Future Music Activities		National Federation of State High School Association	Among its most significant considerations, the study recommends masks be worn by all students and staff in a performing arts room – even while playing instruments when possible – and that no talking should be done without a mask on. Participants who cannot feasibly wear a mask over the mouth while playing should wear one on the chin and move it over the mouth when resting. Teachers can reduce their own emissions by using a portable amplifier to keep their voices at a low conversational volume.	<a href="https://www.nfhs.org/articles/preliminary-results-of-performing-arts-aerosol-study-depict-hopeful-outlook-for-future-music-activities/">https://www.nfhs.org/articles/preliminary-results-of-performing-arts-aerosol-study-depict-hopeful-outlook-for-future-music-activities/</a>
Covid-19 Aerosolization Studies			Google Drive Folder of Aerosolization Studies specifically for Musicians	<a href="https://drive.google.com/drive/folders/1PZ8RF3EytzUWGwfJNpu4fsyXc4E_u2Yi?usp=sharing">https://drive.google.com/drive/folders/1PZ8RF3EytzUWGwfJNpu4fsyXc4E_u2Yi?usp=sharing</a>