Listen-Pair-Share: a template for facilitating inclusive group discussion about active listening

Nathan Wolek
Stetson University
nwolek@stetson.edu

ABSTRACT

Acoustic ecology has benefited from the way many of its earliest advocates documented their pedagogical techniques [1]. It allowed activities like soundwalking to become mainstays and helped introduce so many students to the practice of active listening. However, these same activities need to be re-evaluated using contemporary standards of inclusion and accessibility. When listening to outdoor environments, features like silent movement and visual cues can create barriers for students with visual impairments or mobility challenges. This paper provides a lesson plan for a new activity called "Listen-Pair-Share". The activity begins with students listening to a soundscape for a brief period of time. Next, students are paired up to engage in small group discussions. Finally, each small group chooses a spokesperson and reports out to the entire gathering. The lesson represents an earnest effort to adapt and update common teaching methods used within acoustic ecology so that we can better serve diverse audiences.

1. INTRODUCTION

When first learning to talk about sound, students often benefit from structured listening activities. Such activities can help students of all ages practice newly-introduced vocabulary, better understand unfamiliar concepts, and focus their attention on specific elements within the soundscape. We are very fortunate that early advocates of acoustic ecology incorporated pedagogy into their publications, allowing many beyond their own students to benefit from and reflect on these lesson plans and listening exercises. The publication of such teaching strategies for wider dissemination and public scrutiny would eventually be called "scholarship of teaching and learning" [2], and those of us who currently teach about soundscapes have certainly benefited from those early examples provided by R. Murray Schafer [9, 10] and Hildegard Westerkamp [13]. In particular, activities like soundwalking [11] and silent journaling would become mainstays of how many of us introduce students to active listening. And yet, elements of these activities may prove problematic when measured against contemporary standards for inclusive teaching. Several of Schafer's ear cleaning exercises make use of written notes or visual cues that would

be problematic for blind students. In lecture two from *Ear Cleaning*, we are told that "as students enter the class Schafer stands motionless with a pile of paper in his hand and a sign pinned on his jacket reading: 'Take paper. Write down the sounds you hear' [9]." A blind student would be excluded from the visual directions and using the paper to quietly take notes. In lesson 23 from *A Sound Education*, Schafer proposes "inviting a blind person to the class to discuss how it is possible to navigate by means of aural clues from the environment [10]". While this dialogue could certainly help the students develop empathy, it starts with the assumption that no one in the original class will be blind themselves. In her often-cited article entitled "Soundwalking", Westerkamp instructs readers to "try to move without making any sound" [13]. This has become an expected pre-condition for most soundwalks, and yet it ignores the use of cane tapping and verbal directions from a sighted guide that many blind individuals rely upon to navigate while walking. There is also no mention of how to adapt when participants have mobility challenges and may be using a motorized wheelchair that makes sound. All of these have the potential to draw attention to differences and make people self-conscience.

Since 2020, the author has been co-director of a soundscape program for blind and partially sighted youth called *Young Sound Seekers* [1]. Monthly outdoor excursions to various national and state parks form the core of our program and provide a rich environment for experiential learning about the natural soundscape. We have developed a curriculum of lessons and activities that borrow terms and concepts from acoustic ecology and sound art. The kids that we work with don't necessarily need our guidance to recognize the importance of sound, but the vocabulary we have been able to introduce does allow them to talk about what they hear in new and exciting ways. While working on the curriculum, I found myself re-evaluating many of those mainstays from teaching acoustic ecology and questioning their design within a new accessibility frame. Many lessons and activities that I had previously used in my college teaching needed to be re-designed for this new audience in order to ensure that they maximized inclusion. Young Sound Seekers is sup-

ported by the U.S. National Park Service (NPS), which has an important legacy of teaching through what it calls "interpretation" [7]. NPS has its own publications that include lessons and activities about natural sounds, lessons that share some of the same problematic elements found in our acoustic ecology mainstays by Schafer and Westerkamp. *The Power of Sound* [8] is a handbook intended to educate rangers about topics related to natural sounds. It includes several suggested activities focused on sound in its appendix, including one called "Silent Hike/Silent Sit". The silent hike option will seem very familiar to those familiar with soundwalking, but it also asks participants to use visual cues to preserve the silence. Those on the hike are supposed to "raise their hand when they see something they want to share". And while the silent sit variation would be beneficial for those with mobility challenges, it still suggests that participants should use paper and pencil to write or draw about the things they are hearing. The Junior Ranger program for kids includes a Sounds Explorer workbook for kids [12]. It embeds several activities that ask the participants to sit quietly and draw or take notes about what they hear. Once again, there appears to be an assumption of uniform ability within the group and no guidance about how to adapt for visitors with visual impairments or mobility challenges.

If we want acoustic ecology to be more inclusive, we need to adapt and update our teaching methods to improve accessibility and better serve diverse audiences. One clear innovation from Young Sound Seekers is an activity we call "Listen-Pair-Share". Its name is an adaptation of Think-Pair-Share [3, 4], an activity which is typically used in large classroom settings as a way to get more students engaged in discussion. "Listen-Pair-Share" provides a process for actively listening to the soundscape present at a single location. It combines elements of Schafer and Westerkamp's listening exercises, as well as drawing ideas from interpretation activities circulated among NPS staff. However, because it was designed to maximize accessibility, it does not require the group to move silently while listening. Instead, the members of the group move to the location before the start of the lesson. During that movement, they should be free to casually talk and make necessary sounds while traveling to the site of the lesson. This change alone allows us to overcome many barriers to equal participation because we have decoupled movement from active listening. It has proven effective for a variety of audiences. The author has used "Listen-Pair-Share" successfully with teenagers and college students, while others have offered positive feedback after testing it with younger kids, adults, and mixed age groups. The remainder of this paper will provide a clear lesson plan and share some tips based on using this activity with Young Sound Seekers.

2. PREPARATION

2.1 Location

When choosing a location where your group will listen, don't just think about the soundscape that is present. You should also think about the size of the group and how you will ask people to arrange themselves at each phase of the lesson. During the listening phase, people may wish to spread out or sit down. During the pairing phase, people will need to be close enough to have a conversation with their partner. During the sharing phase, it works best when the full group can form a circle, either seated or standing. This physical formation reinforces that everyone has something to offer the group. Be sure to choose a location that can accommodate these various spatial arrangements.

2.2 Materials Needed

Because the leader is responsible for monitoring time during the listening phase, a watch or timer is essential. It is also useful to record observations by the group at each step to facilitate later reflection. Therefore, we highly recommend that the leader designate one person as the recorder during the final sharing phase. If a recorder is designated, be sure to provide a pen and notebook (or some equivalent materials for writing outdoors) for that person to record observations. Alternatively, the leader could use a digital audio recorder to capture the conversation. If this is done, be sure to let eveyone know that they are being recorded and share the details of how you intend to use the recording.

2.3 Learning Objectives

- Students will practice focusing their attention completely on the task of listening.

- Students will consider the importance of increased awareness for the sounds around them.

- Students will group sounds into categories based on similarities.

- Students will communicate their perception and memories of sound in small groups.

3. PROCEDURE

3.1 Step A: Listen

Encourage students to spread out so that they have some space between themselves as individuals, but to still remain close enough that they can easily cluster back together when asked. Instruct them that we are going to make ourselves as silent as possible so that we can spend a short amount of time actively listening to the soundscape around the group. Remind people that they need to

minimize movement, silence phones and watches, and breathe comfortably. Ask the group informally how long they think they can silently listen to the soundscape. If this is your first time doing this activity with a specific group, you probably want to start with something short like 30 or 60 seconds. If a group is more experienced, you can extend the exercise to 60 seconds and beyond, but then seating is advised to minimize fidgeting. Whatever duration you decide, inform the group that you as leader will be watching the time and so they do not need to keep track themselves. Instead of watching the clock, their sole job is to focus on the soundscape. In addition, tell students that they may want to close their eyes if they are comfortable doing so, as it can often help focus their attention on the soundscape even more. Be aware that active listening is a skill that requires practice. The first time a group of students complete this task, it is best to give them a minimal amount of direction about what to listen for beforehand and instead just focus on how to properly listen. If you are fortunate enough to be working with a group of students over multiple iterations of this activity, you can introduce listening prompts before you begin silently listening. Here are some suggested prompts:

- Discuss the differences between human sounds and natural sounds. Ask students to ignore any sound that is produced by humans and only focus on the natural sounds.

- Introduce the three categories of sounds proposed by Dr. Bernie Krause: biophony, geophony, and anthropophony [5, 6]. Ask students to listen for at least one example of each while they listen to the soundscape.

- Introduce the difference between sound and noise (unwanted sound). Ask students to consider whether each specific sound they hear is a sound or a noise.

- Introduce the NPS's concept of intrinsic and extrinsic sounds for the park [8]. Ask students to listen for examples of intrinsic sounds that help define this park, and to identify any extrinsic sounds that might interfere with their listening.

After agreeing on the duration and topic, it might mean some people want to sit while others remain standing. Allow students to have a final opportunity to get themselves comfortable. It's a good idea to explicitly ask, "Is everyone comfortable and ready?" To start the listening phase, be sure to clearly convey to students that you have started the clock. If you are going to be doing this exercise multiple times with a group, consider adopting a key phrase that you use consistently such as, "Let's give our full attention to the soundscape." Using your watch or timer, begin monitoring time for the duration that the group agreed was appropriate.

3.2 Step B: Pair

After the full duration has elapsed, gently regain the students' attention. *Do not make any sudden or loud sounds,* as these will hurt the trust students have placed in you as leader. To start the pairing phase, instruct students to select someone nearby who will be their partner. If a pair notices that someone nearby does not have a partner, encourage students to invite them to form a trio. However, we do not advise having small groups larger than three, as this makes it harder to ensure everyone has an opportunity to share during this phase. You should also discourage students from relocating to simply talk with their good friends. Instead, tell them to use this opportunity to get to know someone nearby that they may not have talked with much before today. If you gave the students a listening prompt during Step A, the leader should remind them of that topic or question again after listening. This helps to ensure that conversations in the small group stay on topic. Some prompts are better given after the listening phase has concluded, forcing students to engage their memory or reflect on individual sounds that were heard. Some suggestions include:

- What individual sounds did you hear?
- What individual sounds did you like/dislike?
- What was the loudest/quietest sound that you heard?
- What was the closest/farthest sound that you heard?
- If this is the second time listening at this location, what did you hear that was new?

In addition to giving students a discussion topic, remind them that it is important for everyone to have a chance to share in their small group. Tell students to take turns speaking and avoid talking over the other person. The leader can use a variety of fun prompts to help pairs determine who goes first, especially if you will be repeating this activity with students. Here are a few suggestions:

- The person with the most (or fewest) letters in their first name.
- The person with the smallest (or largest) shoe size.
- The person who was born the farthest away from (or closest to) our current location.
- The person who has visited the most (or fewest) National Parks.

During Step B, the leader's role should be one of observation. If you notice a group that is not talking much, feel free to engage them, clarify the expectations, and try to jumpstart their conversation. And if a group asks for your attention to ask a clarifying question by all means feel free to offer a brief answer so that conversation can continue. However, during this phase of the activity, you should avoid diving into lengthy explanations that might stifle your students sharing experiences with each other. This can be hard, especially if they insist on tapping into

your experience or knowledge. There are two responses that can often help redirect them back to their own conversations: "Can I wait to discuss that after we gather everybody back together?" and "What do you think?" The transition from Step B to C can be handled in different ways. The leader needs to provide small groups with adequate time to discuss what they heard and any questions they were asked to consider. The simplest strategy is to tell small groups at the outset that they have 5 minutes to talk and set a timer. If you do this, give a verbal prompt at the halfway point to ensure equal time for each person to share. Another potential strategy is to wait for the natural lull in conversations that will inevitably happen as students feel they have exhausted the topic, then ask if everyone is ready and give a short amount of time to wrap up conversations. Whatever strategy you use, be sure to convey it clearly to the students so that they can anticipate the end of Step B and pace their conversations accordingly. By taking responsibility for this transition, you also allow the students to focus on their conversations more fully.

3.3 Step C: Share

To begin Step C, the leader should gather the whole group together in closer proximity. This works best if the group can form a single circle, but obviously the size of the group and the features of the surrounding area may necessitate other configurations. The leader may want to position yourself in the center so that you can hear everyone clearly, but be sure that you can be heard clearly yourself. Start by reminding the group again about specific questions or topics that were given as listening prompts. It can be helpful to also remind younger students that these questions don't necessarily have wrong answers, so we need to refrain from judging the quality of any responses. The leader should also set expectations at the beginning for how many pairs will share their conversations with the full group. Ideally, you want to hear something from every pair, but if time will only allow you to hear from a few pairs, it is better to let them know in advance. Telling the group this information ahead of time helps avoid cutting off conversation before someone who really wanted to share gets their chance to speak.

To determine who goes first, the leader can again turn to some fun prompts. Here are a few more suggestions:

- The group with the most (or fewest) total items in their pockets.
- The group with the most siblings or pets (or total by adding siblings plus pets).
- The group with everyone (or no one) wearing hats.

While these prompts may seem silly and random, they are especially useful when a group is repeating this activity. By using a technique other than volunteering, you prevent the same person from always volunteering first.

Throughout this time of sharing, be sure to offer positive reinforcement whenever possible. When someone makes a point you want to emphasize feel free to follow up by asking, "Did everyone hear that?" You can then ask them to repeat it, try to paraphrase it yourself, or ask a volunteer to paraphrase it. Whenever paraphrasing, be sure to check with the original speaker afterward to ensure that your version accurately reflects what they wanted to say. After every pair (or every pair that you have time for) has shared, be sure to summarize the major points you want them to take away from the activity. At minimum, you should revisit any listening prompts that were given in the listening and pairing phases, then highlight how the sharing phase addressed these prompts. Be sure to do this in a positive way and avoid shaming anyone who may have gotten off topic.

3.4 Final Discussion

After completing this activity, you will typically find that it is easier to get people engaged in further conversation. If you have additional time after the sharing phase, you may wish to extend the conversation using some of the following discussion prompts:

- Were there any individual sounds that your group could not identify the source? How did you talk about the sound without knowing its source? Were you able to point out certain features

- How difficult was it to ignore human sounds and pay attention to natural sounds? Why do you think human sounds dominate our attention so easily?

- Imagine you are one of the birds found in this park. How might features in the local geophony and anthropophony affect your communication with other birds? What strategies might you use to adapt and improve communication?

- Did your group disagree with another group's classification of a specific sound as noise? Why did your group reach a different conclusion?

- If you were a NPS researcher helping the park manager, what sources of extrinsic sounds might you suggest he or she try to address? What sources of intrinsic sounds might you suggest he or she try to protect?

4. CONCLUSION

"Listen-Pair-Share" was designed to prioritize inclusivity. It is flexible enough to be adapted to a variety of locations and their associated soundscapes. It can also be adapted to practice the application of many concepts from acoustic ecology or the Natural Sounds and Night Skies Division Interpretation Handbook [8], such as sound versus noise, masking, or intrinsic versus extrinsic sounds. However, if any modifications are made to the procedure,

please avoid introducing barriers to full participation. And if you find there are barriers present that we did not anticipate, please contact the author so that we can continue making improvements.

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