Early Sound Sketches

Sketches-Round#1

The guessing game: The following three sketches are made based on general attributes of a pie chart, a line graph and a Venn diagram perceived by sighted users. Please listen to each sketch and try to map each sketch to one of these three diagrams. Please share your results as well as your thought process or any interesting insights:

Sketch#1.mp3

Sketch#2.mp3

Sketch#3.mp3

Answers and Received Feedback:

Sketch#1 is supposed to represent a Line Graph. It is tried to use natural sounds in this sketch to see how natural affordances help listeners identify the presented values.

- The Drum sound is representing the X axis that is increasing e.g. 0-100.
    - Listeners assumed this was one of the values that was increasing over time.
    - Due to its rhythmic sound, the listeners were not able to clearly identify the units.
- The rain sound is representing the line. Volume increase and decrease indicates high and low points in the sound.
    - Most listeners identified the increases and decreases in the rain sound and associated it with a value that goes up and down.
- The thunderstorm naturally happens when the rain is at its peak. Thus, this sound is used to represent the highest point in the line.
    - Some listeners assumed this is a separate value and not related to the rain sound.
- Most often when the rain stops, you can hear birds singing. Thus, bird sound is used to represent the lowest points in the line.
    - Most listeners did not associate the bird sound with the rain sound and assumed that was a separate value.

Sketch#2 is supposed to represent a Pie Chart. It is tried to use sounds from the same family to represent a whole.

- The choir pitch represents different sections of a pie chart and the length of each section represents it's relative size to the whole as well as to the other sections.
    - Most listeners were able to identify this piece as a pie chart, since there was a clear distinction between sections yet they were from the same sound family.

Sketch#3 is supposed to present a Venn diagram with three sections.

- Each section is presented with a different type of instrument. The overlapping sounds represent the overlapping areas of the diagram.
    - This was confusing for most listeners. They were not able to identify what the overlapping sounds were indicating, specially when all three sounds were played together.
- The metronome sound is used to show the relative size of each bubble in the Venn diagram.
    - This was very confusing for many users and assumed this piece was a line graph.

Overall feedback:

- Adding an audio legend to the beginning of the piece
- Trying to stay away from thematic sounds which distract the listener
- Having time unit e.g. metronome sounds is appropriate for line graphs or bar charts not for pie charts or Venn diagrams
- Be very careful about changing pitch and volume as visually impaired listeners could quickly pick up subtle differences