



How Does the Use of Acoustic Vs. Digital Instruments in Recorded Music Affect Teens' Emotional Response to Music?

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Abstract

Objective: Analyze and assess whether or not the use of acoustic instruments or use of digital instruments in recorded music results in differences in emotional responses in teens

Hypothesis: Acoustic instruments will be more powerful when producing emotions from teens

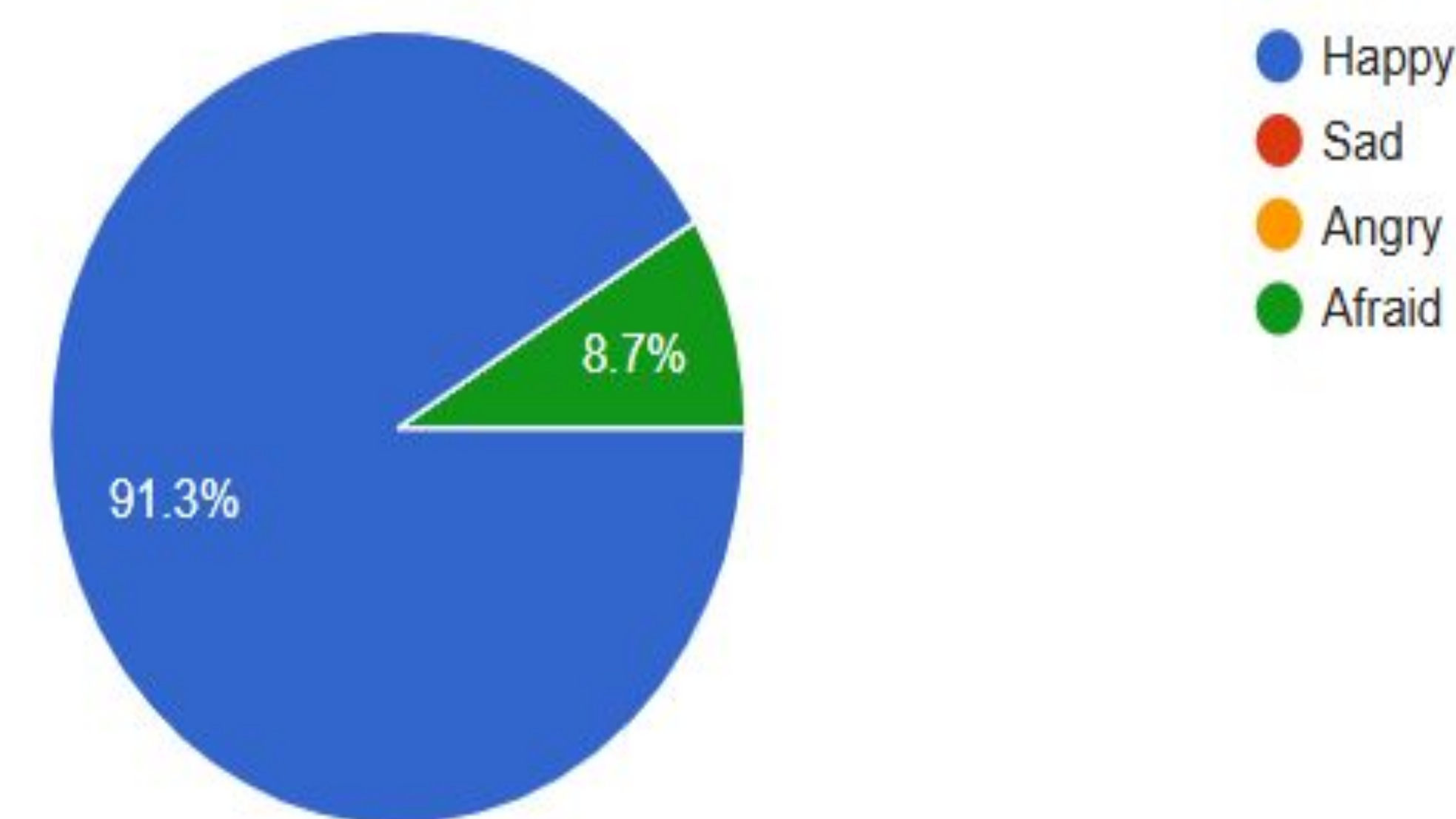
Methods

1. Each participant was given a google forms survey to fill out.
2. Within this survey, audio files were embedded for the participant to listen to. After listening to an audio the participant would:
 - choose which emotion they felt most when listening to that audio (happy, sad, angry, or afraid)
 - rate how intensely they felt that emotion, from 1 to 3 (1 being barely feeling that emotion and 3 being they felt that emotion tremendously)

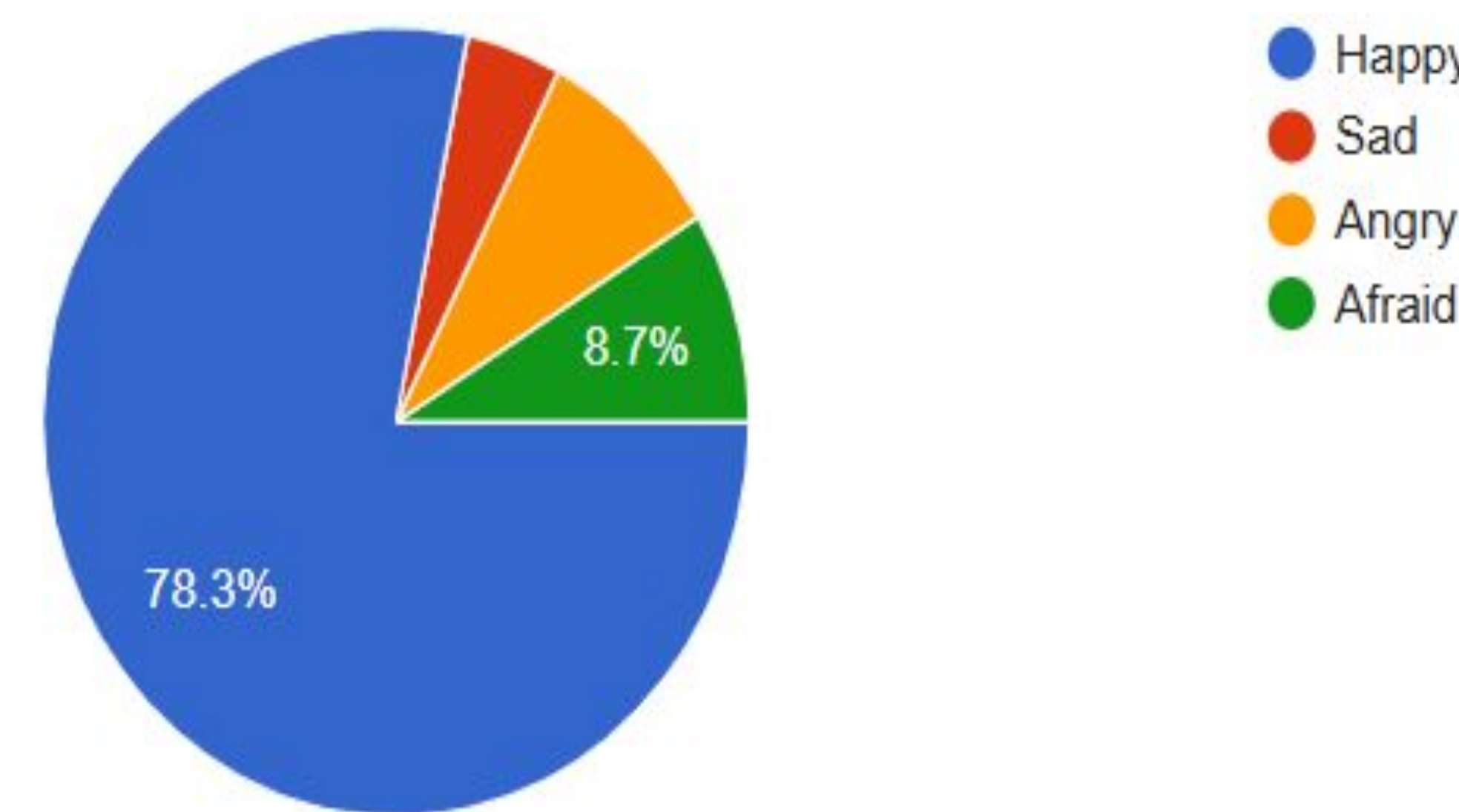
Simultaneously, as they listened to each audio, I kept track of which audio they were on. For each audio I observed their facial expressions and body language by checking off specific characteristics from a checklist (e.g. head nodding, slouched over, foot tapping, smiling). This was to help ensure that the response they recorded seemed accurate to their physical response.

Results

Audio #1
23 responses



Audio #2
23 responses



In addition to the pie charts, the likert scales illustrated that the acoustic instruments had a higher emotional impact. Specifically, for each acoustic audio, most of the participants reported that the emotion they felt while listening to the audio was either 2 to 3 (moderate to tremendous intensity) and most participants only reporting 1 (barely felt the emotion) for the digital instrument audios.

These pie charts are a minimal example of the comparison in how the acoustic versions of each audio affected the audience in comparison to the digital version. Audio #1 (acoustic instrumental audio) shows much more agreement on how the audio makes each participant feel, while Audio #2 (digitized version) shows some disagreement.

Limitations

- Voluntary sampling
- Sample drawn only from J.R. Arnold High School
- Everyone expresses emotions physically in different ways

Conclusion

Based off of the higher emotional clarity and intensity of recorded acoustic music, acoustic instruments seem to better influence teenagers' emotional response to recorded music than digital instruments.

Discussion

Future musicians and even the teenage audience can use acoustic music to their advantage. For example, since it is shown that "happy" (staccato notes and fast tempo) acoustic music is more influential than digital music, audience members can listen to similar acoustic music to brighten their mood.