

The Effect of Music on Dogs

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Abstract

The question I tried to answer is “what music calms dogs down most when alone?”. My hypothesis was that classical music would calm down my dog the most. So, to test my hypothesis, I played my dog (Sandy) 5 different genres of music all by different artists. Her resting heart rate was 63 heart beats per minute(bpm). The lowest heart rates I recorded came from the music genres reggae and classical with 63bpm. Then rap with 66bpm, then country with 68bpm, and then finally with the highest heart rate, rock with 74bpm. So, reggae and classical music calmed my dog down the most

Question

What music genre calms down a dog the most when alone?

Variables

Variables that could affect the results of the experiment:

- Breed of the dog
- If the dog is a pure bred or mix
- The dogs age
- Weight of the dog
- If the dog is hyper or not
- Last time she ate
- When she last slept (if she just woke up or is tired)

Hypothesis

I believe that if I play my dog 6 different music genres, then out of all of those, the classical music genre will calm her down the most. I think this because for humans, classical music is usually used as background music or study music due to its calming nature.

Background research

I found a study done by King Phillip Regional High School in Wrentham, Massachusetts. Their goal was to test the effect of different genres if music on dogs’ heart rate. They used 6 different breeds of dogs and played them 5 different

genres of music. They concluded that Jazz music resulted in the dogs lowest heart rates. They measured the dogs heart rate with a stethoscope which influenced me to do the same with my experiment as before I was just going to measure her activity or her physical behavior. Doing this background research also made me realize I could improve of my ways of performing my own experiment such as measuring the dog's heart rate.

Materials list

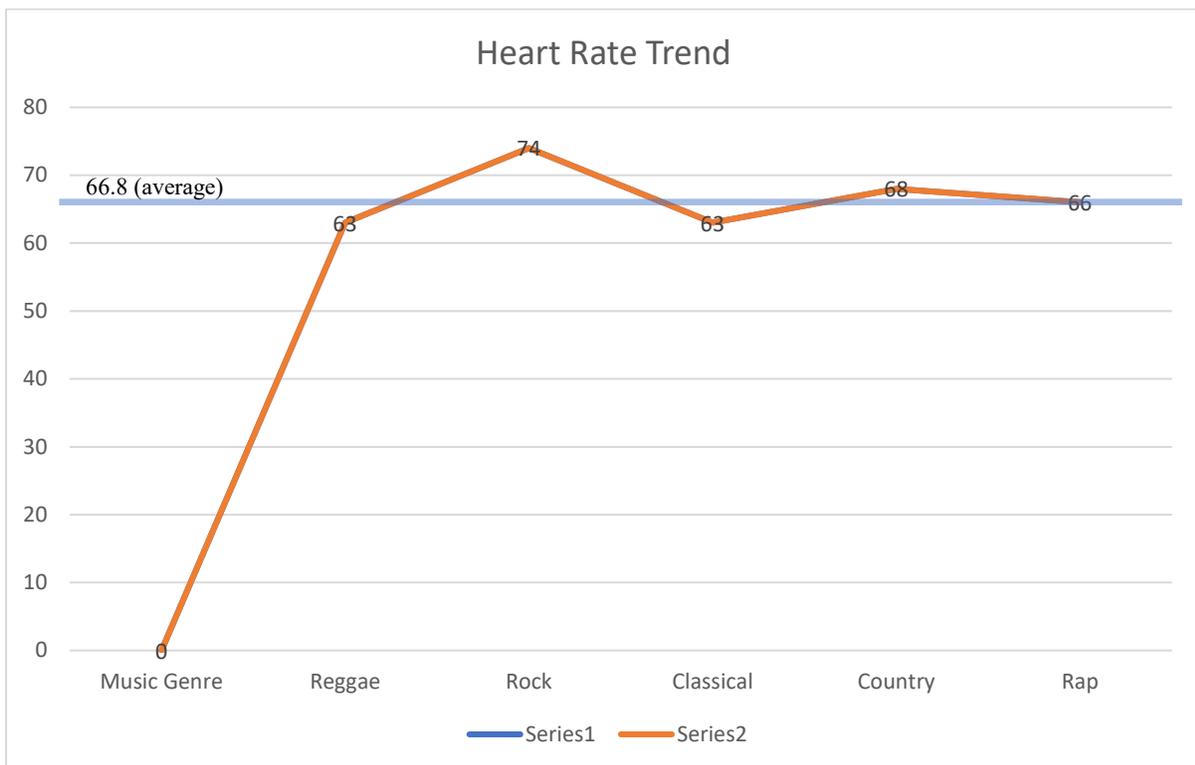
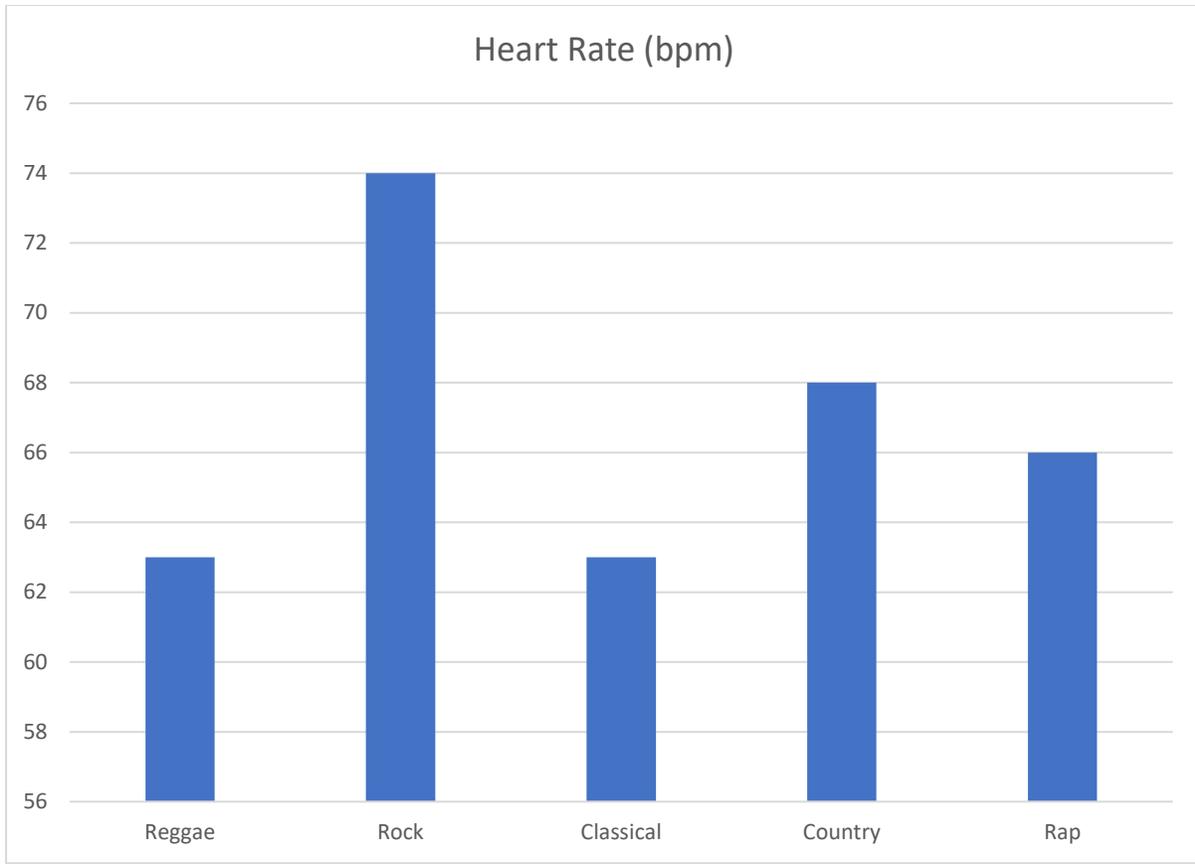
- Stethoscope
- Speaker
- Timer
- Music (laptop)
- Camera

Experimental procedure

My first step of the experiment was to gather all my materials that I listed. I recorded her resting heart rate using the stethoscope. After that I played her the first genre which was reggae, and after the song was over, I tested her heart rate again and gave her a 5-minute break. After playing her the first genre I then continued this on for 4 more genres while also continuing to measure her heart rate after each song and giving her a 5-minute break in between the songs. After I was done playing her all the songs, I was finished collecting all my data and gave her a treat for being a good dog and behaving.

Data analysis

Firstly, the dog that I tested for my experiment was my dog, Sandy. Sandy is a pure bred (we think) golden retriever. She is 6 years old, weighs 76lbs, and is only sometimes she gets hyper. Her resting heart rate was 65 bpm and I got that by using a stethoscope and a timer set for 1 minute. I played her a total of 5 genres of music, reggae, rock, classical, country, and rap. For the reggae genre I played her Bob Marley's Three Little Birds which resulted in a heart rate of 63bpm which is surprisingly lower than her resting heart rate. For the rock genre I played her Welcome to the Jungle by Guns'N'Roses which elevated her heart rate to 74bpm. For classical I played her Fur Elise by Beethoven which resulted in another heart rate of 63bpm. For the country genre I played her Amarillo by Morning by George Strait and she had a heart rate of 68bpm. Finally for the last genre which was rap I played her Without Me by Eminem and she had a heart rate of 66bpm.



Conclusions

Overall, reggae and classical music gave the dog the lowest heart rate of 63bpm which made her the calmest. This makes my hypothesis partially correct because I predicted that classical music would clam her down the most. So, if you need your dog to calm down while you're out of the house, play some reggae or classical music.

Ideas for Future Research

This topic that I researched gave me a few more ideas on what else I could do. Like maybe try some different or new genres, or maybe even different songs.

Acknowledgements

I'd like to thank my parents for pushing me to do this experiment. Especially my mom for letting me borrow her stethoscope.

Bibliography

Background research - <https://emerginginvestigators.org/articles/music-s-effect-on-dogs-heart-rates/pdf#:~:text=The%20results%20showed%20that%20classical,any%20re%20action%20from%20the%20dogs.>

Where to find dogs pulse - <https://www.dixieanimalhospital.com/blog/13048-what-is-normal-dog-temperature-heart-rate-and-respiration#:~:text=To%20check%20your%20dog's%20heart,get%20the%20beats%20per%20minute.>

How does music affect dogs - <https://www.entirelypets.com/how-does-music-affect-your-dog.html>