Ariel Cibrian #5

11.7.25

8th grade Science

Science Fair Logbook

Logbook

Title: Relaxation of Rhythm

Objective:

- In this experiment I will be testing which genre of music helps me calm down.

Statement of the Problem:

- The problem in this experiment is finding which genre will calm me down most effectively. I want to do this experiment because I find myself feeling stressed out when too many things are going on at once. If I have headphones or airpods in, the stress goes away. To help calm myself down, I will be finding which genre will help me stay calm. This experiment can help a lot of other people who get overwhelmed and stressed easily. Listening to music can help these individuals function better while under stress.

Dependent and Independent Variable:

- Independent- Song/genre
- Dependent- Heart rate
- Control- Scary game, volume of music, amount of time I listen to the music, and location

Hypothesis:

- If I listen to folk while playing a scary game, then I will feel less stressed out than without music because folk is very relaxing and mellow.

Materials:

- 1- Heart rate monitor (or apple watch)
- 1- Phone
- 1- Ipad/ tablet
- 1- set of headphones
- 1- scary game of choice
- 1- notes app

Procedures:

1. Gather materials.
2. Unlock the iPad/or tablet.
3. Choose your scary game for the experiment.
4. Select your genre of music on the phone.
5. Put your headphones on.
6. Put the Apple Watch on (or a heart rate monitor).
7. Record your starting heart in the notes app.
8. Set a timer for 10 minutes.
9. Play the scary game for 10 minutes with your music playing.
10. Record your heart rate after 10 minutes are up.
11. Find the difference between your resting heart rate and your heart rate after playing the game.
12. Repeat steps 1-11 for every genre of music.
13. Repeat the procedure once a day for a week

Results:

Based on the data collected, the results demonstrated a noticeable trend that supports the conclusion of this study. The results of this study showed that pop was the best genre of music to calm me down. The average bpm that my heart rate went up was 23 bpm. The

genre that did the poorest job was rap.

bpm while playing a scary game	pop	folk	rnb	jazz	rap
day one	22	41	53	51	58
day two	24	39	55	50	57
day three	20	40	48	49	60
day four	21	36	52	48	62
day five	30	41	50	53	54
day six	23	37	49	52	58
day seven	20	39	52	47	61
average	23	39	51	50	59

Conclusion:

1. The results of this experiment contradicted my hypothesis. I predicted that folk would have the lowest average, but pop actually was the most effective.

2. I accomplished my objective: which genre of music helps me calm down? This experiment was successful because I found the genre that will cool my mood and calm my stress.

3. The results of this study proved that the pop genre of music lowered my stress more effectively than folk, rap, R&B, and jazz. The averages of my heart rate for all of these genres were 23 (pop), 39 (folk), 51 (R&B), 50 (jazz), 59 (rap).

4. The results from my experiment really surprised me. I learned that the genre of music you like the most is the type of music you will find yourself relaxing to. I like pop the most, which gave the lowest average. And I like rap the least, which resulted in the highest average.

5. If I conducted this lab again I would definitely change certain variables. I

would try and take it to the next level by doing my experiment in a real situation and I can listen to certain songs from each genre. To make my experiment more precise, doing more trials would help my results be exact. I do want a larger sample size because seeing how each genre calms someone down, or makes their heart skip a beat, is really interesting.

Pictures:

- All pictures/captions should be added to the slide presentation only.

References:

- Website
- Date of publication
- Site name
- Title of webpage
- Date of retrieval