



Testing the Effect of Music Tempo on Heart Rate



GOAL

To investigate how music tempo (slow, medium, fast) affects heart rate.

HYPOTHESIS

If I listen to music with a faster tempo, then my heart rate will _____ because _____.

MATERIALS

- Device to play music (phone, tablet, etc.)
- Headphones or speakers
- Timer or stopwatch
- Heart rate monitor (watch) or manual pulse check
- Chair
- Data table (below)
- Pen or pencil

CONTROLLED VARIABLES

- Volume of music
- Listening position (sitting)
- Time spent listening to each tempo
- No talking or moving around while listening
- Same time of day (if possible)

DATA TABLE

Condition	Music Tempo	Beats in 60 Seconds	Heart Rate (bpm)	Notes / How I Felt
Resting (No Music)	—			
Slow Tempo	Slow			
Medium Tempo	Medium			
Fast Tempo	Fast			

ANALYSIS QUESTIONS

1. Which music tempo resulted in the highest heart rate? _____
2. Which music tempo resulted in the lowest heart rate? _____
3. How did your heart rate change as the tempo increased? _____

4. How did you feel during each tempo? _____

BACKGROUND

Heart rate is the number of times your heart beats per minute (bpm). Music can affect how your body responds. Faster music may increase arousal, while slower music may help you relax. In this experiment, you will test how different music tempos affect your heart rate.

PROCEDURE

1. Sit quietly and rest for 5 minutes.
2. Measure your resting heart rate for 60 seconds. Record it in the data table.
3. Listen to slow tempo music for 5 minutes. Sit quietly and listen.
4. Immediately after the 5 minutes, measure your heart rate for 60 seconds. Record it.
5. Rest for 5 minutes.
6. Repeat steps 3–5 with medium tempo music.
7. Rest for 5 minutes.
8. Repeat steps 3–5 with fast tempo music.

CONCLUSION

My hypothesis was _____.

The data shows _____

This means _____



Think Further: Would these results be the same for your friends or family? Why or why not?