EARWORMS

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Background

- What are earworms?
  - types of recalled music
  - songs that get stuck in your head
  - cognitively infectious musical agents

Background

- What do we know about earworms so far?
  - little research currently published
  - some scholars have said they are doing research on them
  - the only definite research on them is categorizing and identifying them

Project Goals

- What my project hopes to accomplish
  - A new way of thinking about earworms
  - What concrete earworm similarities will accomplish

Methods

- ➔ Survey set-up
- ➔ Earworm diary set-up
- ➔ Data overview set-up
- ➔ What data was gathered from what study

Survey

- ➔ Online Google survey
- ➔ Sent out through social media
- ➔ No specific sample population
- ➔ Mostly focused on atmosphere around earworm

Earworm Diary

- ➔ 2 weeks, 30 participants
- ➔ most important were:
  - song name and artist
  - mood
  - opinion of song
  - stress level
  - music training
  - BPM/key
- ➔ More concrete data and similarities

Data Overview

- ➔ Spreadsheet
- ➔ All data included
- ➔ Identified all the characteristics being analyzed
- ➔ Some surveys didn't answer parts, left those blank
- ➔ Each category counted and analyzed

Analysis

- What parts of the songs were analyzed?
  - BPM
  - Key
  - Mood
  - Opinion of song
  - Stress level
  - Music training
- What about the environment around the earworm was important?
- How key and BPM were found manually

Categorized data

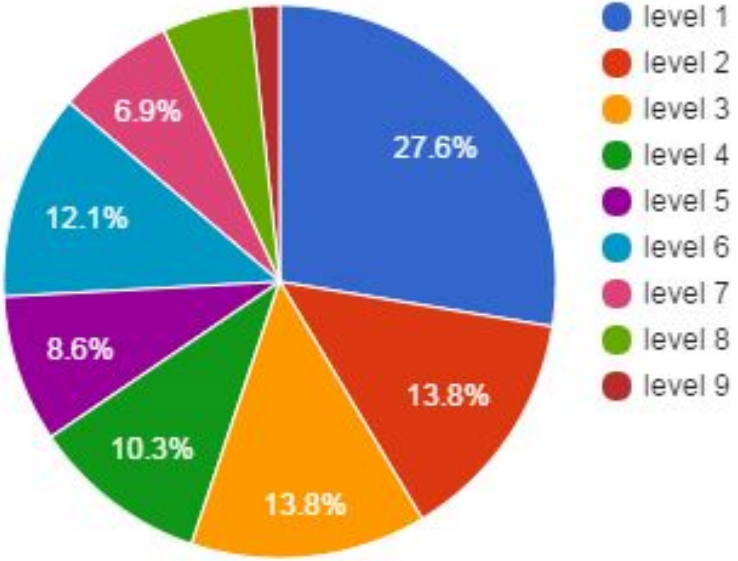
- How mood was categorized and analyzed
  - Positive, negative, neutral
- How opinion was categorized and analyzed
  - positive , negative, neutral

Results

- ➔ Which categories produced trends?
  - BPM
  - Key
  - Mood
  - Opinion of song
- ➔ Which categories didn’t produce trends?
  - Music training
  - Stress level

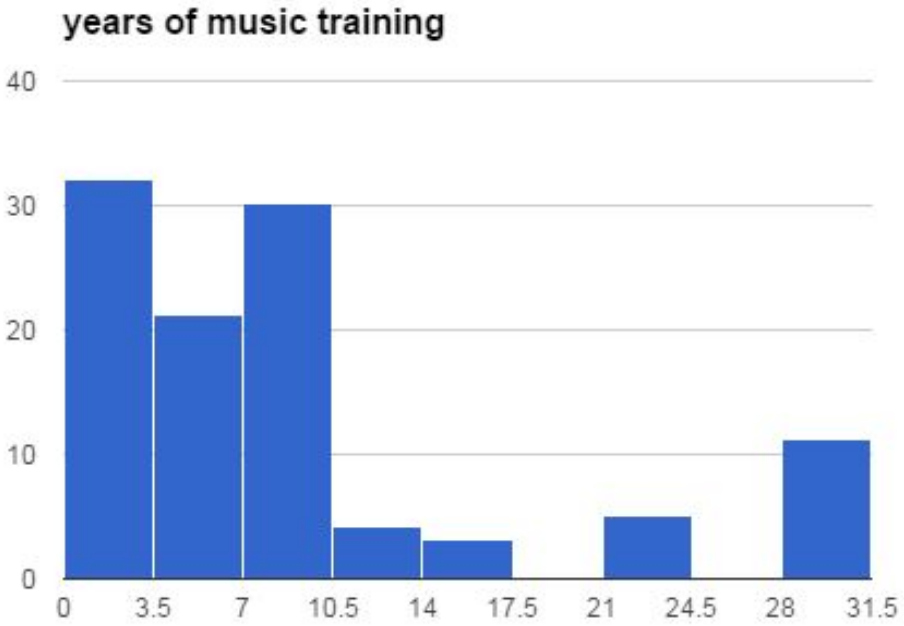
Stress Level

- ➔ No trend
- ➔ Why level 1 seems larger



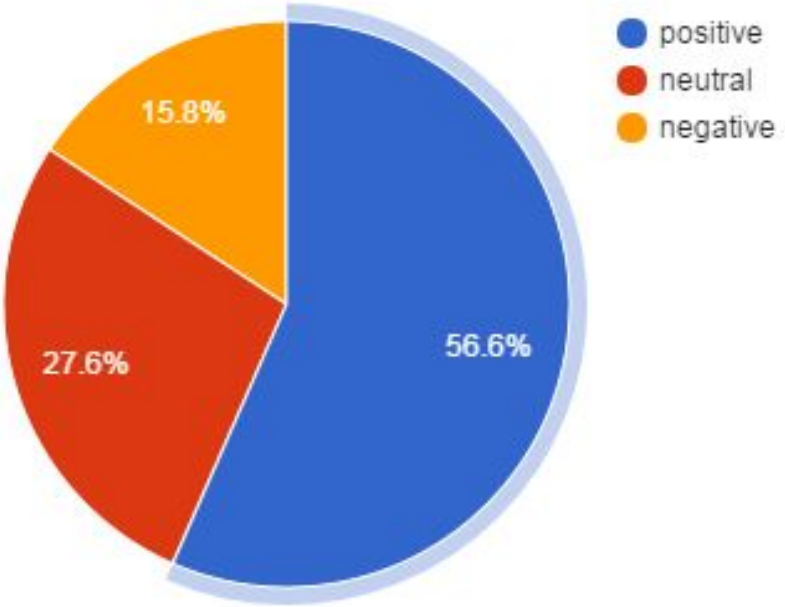
Music Training

- ➔ No trend
- ➔ Why 0-11 is larger



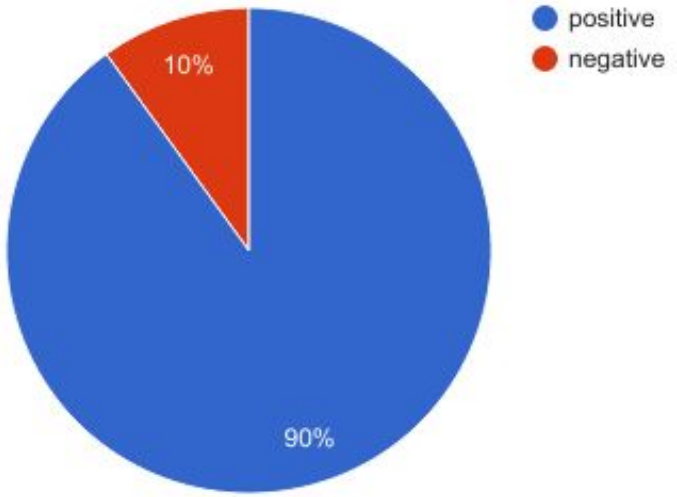
Mood

- ➔ Trend found: positive mood
- ➔ Very few responses in negative category



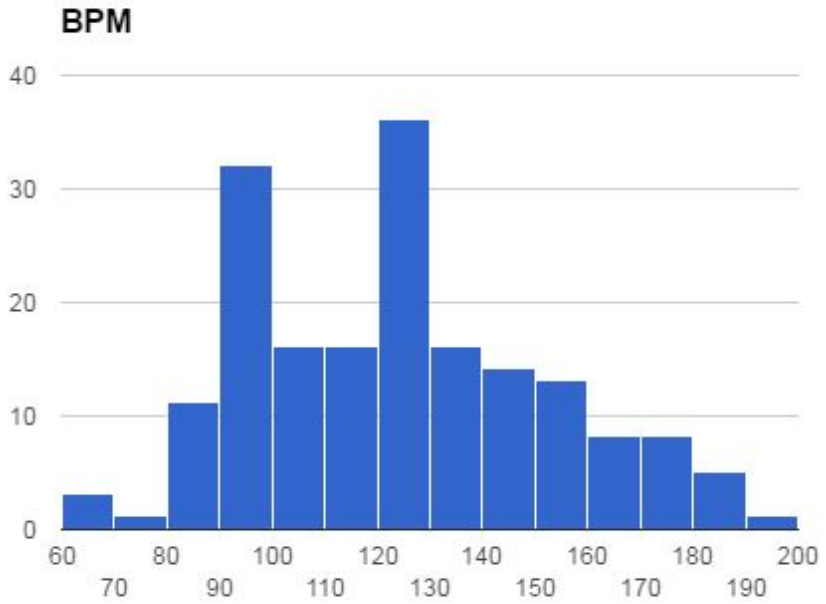
Opinion of Song

➔ Trend found: positive opinion of song



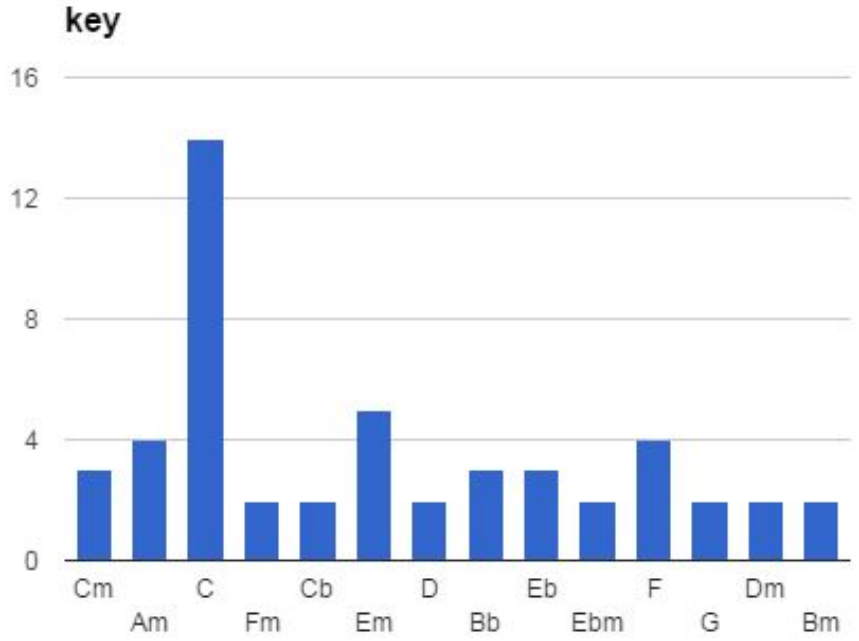
BPM

➔ Trend found: 90-100 and 120-130 range



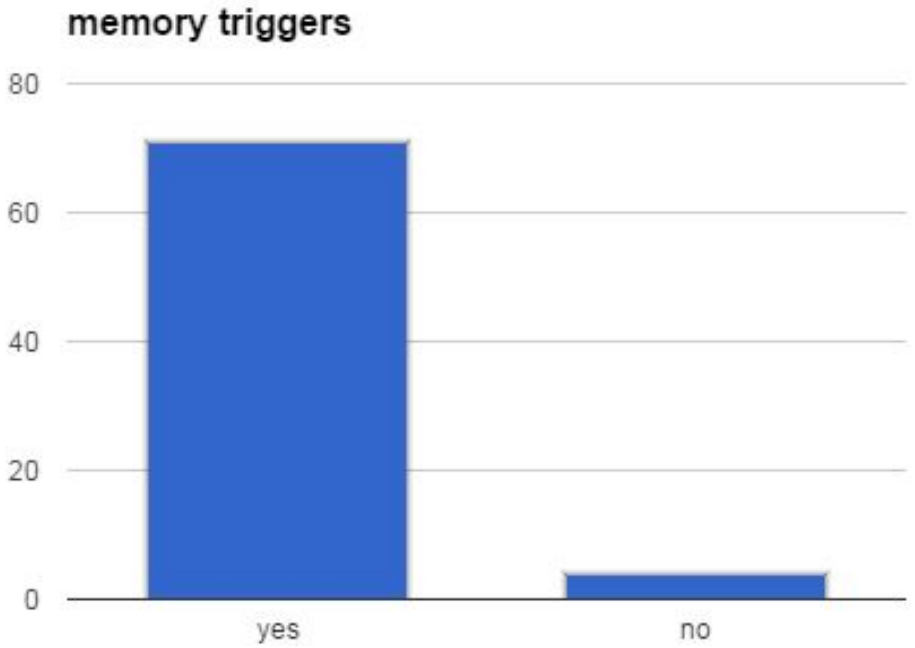
Key

➔ Trend found: key of C



Memory Triggers

➔ Trend found: memory triggers present



Limitations

- ➔ Trends that match averages
  - BPM - average 112
  - Key-varied

Conclusions

- ➔ The perfect earworm
  - key of c
  - 90-100 or 120-130 bpm
  - positive mood & opinion
- ➔ It’s A Small World: key of C, BPM of 121

Applications

- Advertising
  - Song following key and BPM criteria
  - Potentially a pre-existing song-widely enjoyed
  - Play a commercial during a funny or happy program
- Education
  - Create a song with correct key and BPM
  - Teach on a stress free day
  - Find out the type of music the students like
  - Alternatively: have the kids create their own

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Earworms

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