

# Background Music and its effects on Flow State

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# Concept Inspiration

- Play along by Zack Whalen
  - The play along approach is a method for analyzing and understanding video game music that involves actively playing a game while paying close attention to the music and how it interacts with the gameplay.
- Effects of soundtrack music on the video game by Christoph Klimmt's
  - There is a theory that music triggers audiences' memory of specific emotion and combine with the visual image. The film with soundtrack can leave audiences deep memories and understand. Such as war movie with drum music are likely to make audiences enter a state of intensified combat or action experience.

# Psychology concept

- Flow:
  - A psychological concept developed by Mihaly Csikszentmihalyi, which proposes that individuals experience their greatest satisfaction and happiness when they are fully immersed and engaged in an activity that is challenging and requires their full attention. The state of being fully immersed in an activity is called flow, and it is characterized by a sense of control, deep concentration, and a loss of self-consciousness.
- How much does game genre influence the choice of music genre being used? And how much does the music genre influence the players' flow? Can it enhance or decrease player experience with the game? Does music context matter?

# Research Question

- How does music affect player immersion, engagement, flow state, how music can elicit emotional responses and influence behavior during gameplay?

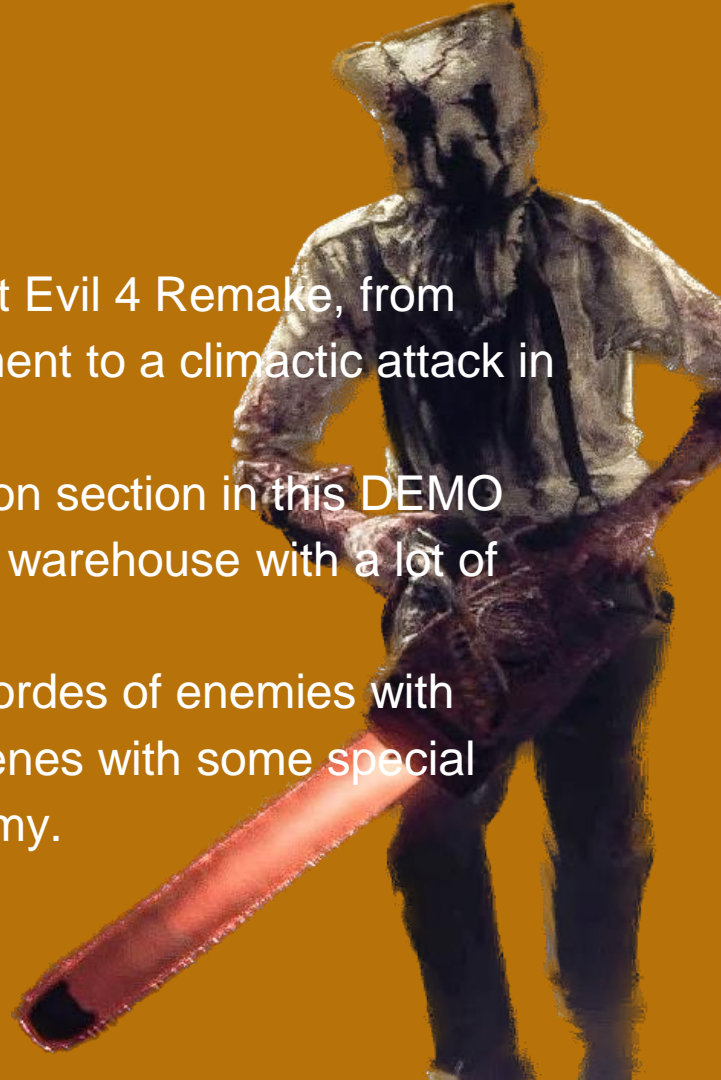
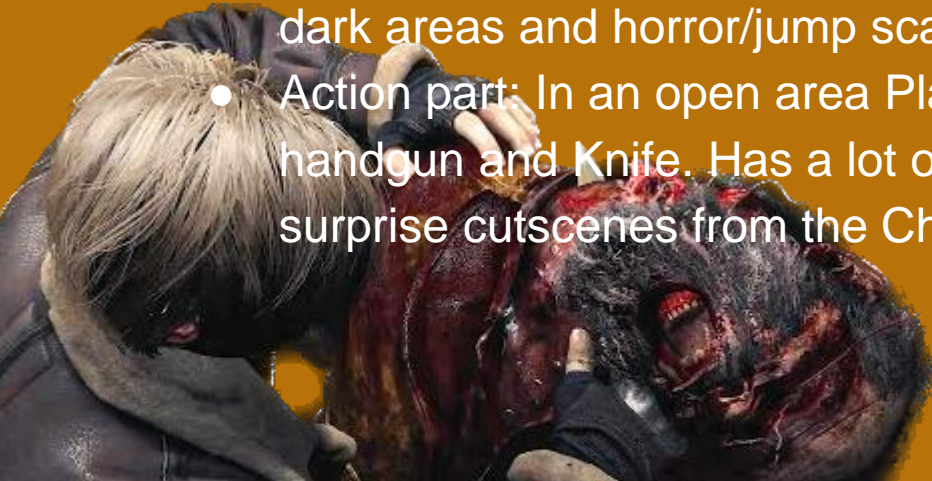
# Methodology

- Game Used: Resident Evil 4 Chainsaw DEMO
- Data Collection tool: Google Survey
- Analysis tool: Google Sheet
- Three music:
  - Action: <https://www.youtube.com/watch?v=kpnW68Q8ltc>
  - Chill: <https://www.youtube.com/watch?v=V6GUhCxMDLg>
  - Horror: <https://www.youtube.com/watch?v=O1wtKpdgk9c>



# Resident Evil 4 Chainsaw DEMO

- This demo features the opening of Resident Evil 4 Remake, from Leon's arrival in a remote European settlement to a climactic attack in the Village Square.
- There are both a horror section and an action section in this DEMO
- Horror part: Player goes through a haunted warehouse with a lot of dark areas and horror/jump scare moments
- Action part: In an open area Player fights hordes of enemies with handgun and Knife. Has a lot of intense scenes with some special surprise cutscenes from the Chainsaw enemy.



# Test Plan

- Participants will be divided into 3 groups, with each group representing a different genre of music used in video games.

GROUP 1: Action  
Song: The Only  
Thing They Fear Is  
You



GROUP 2: Chill  
Song: Animal  
Crossing New  
Horizons



GROUP 3: Horror  
Song: Don't go in  
there

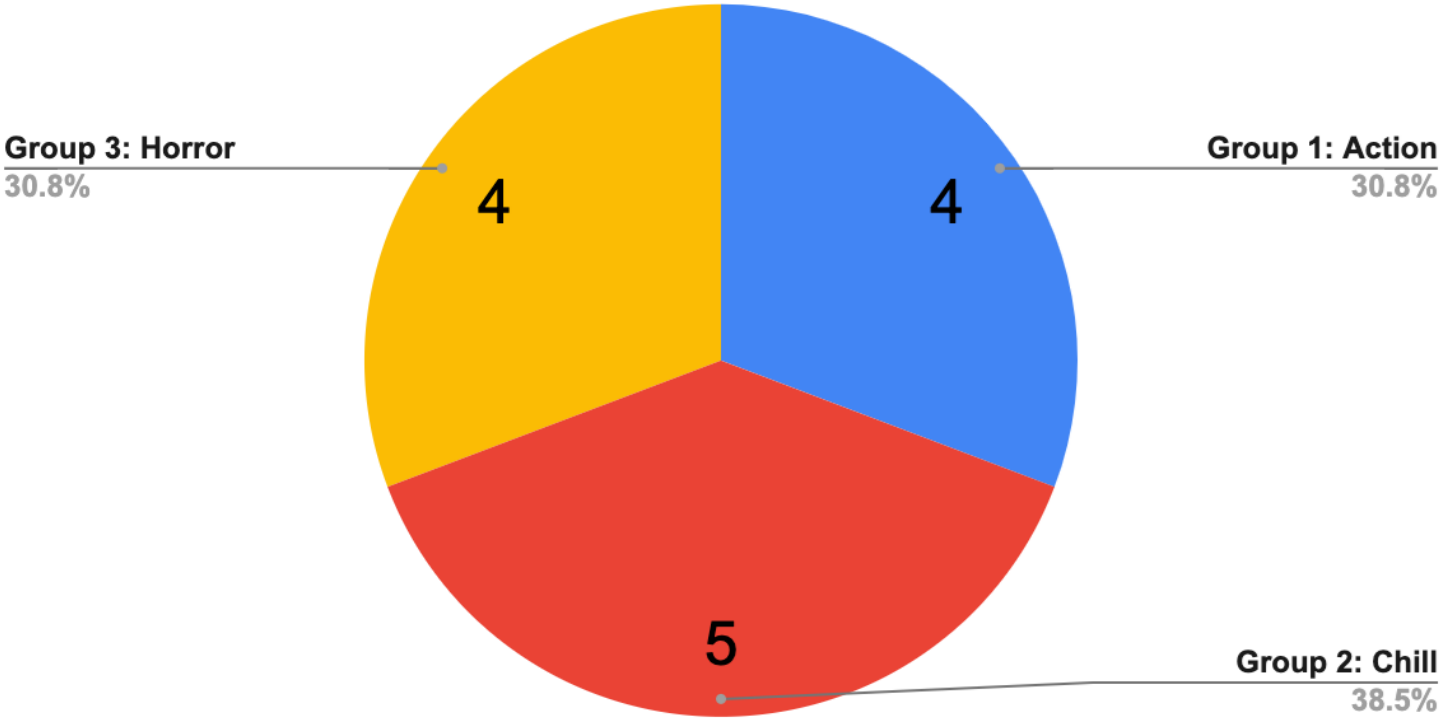


- They will play a Session of the Resident Evil 4 Chainsaw Demo without the use of its original Background Music (BGM) and dumbed down sound effects.
- Participants will complete a survey post Demo session.

# Demographic:

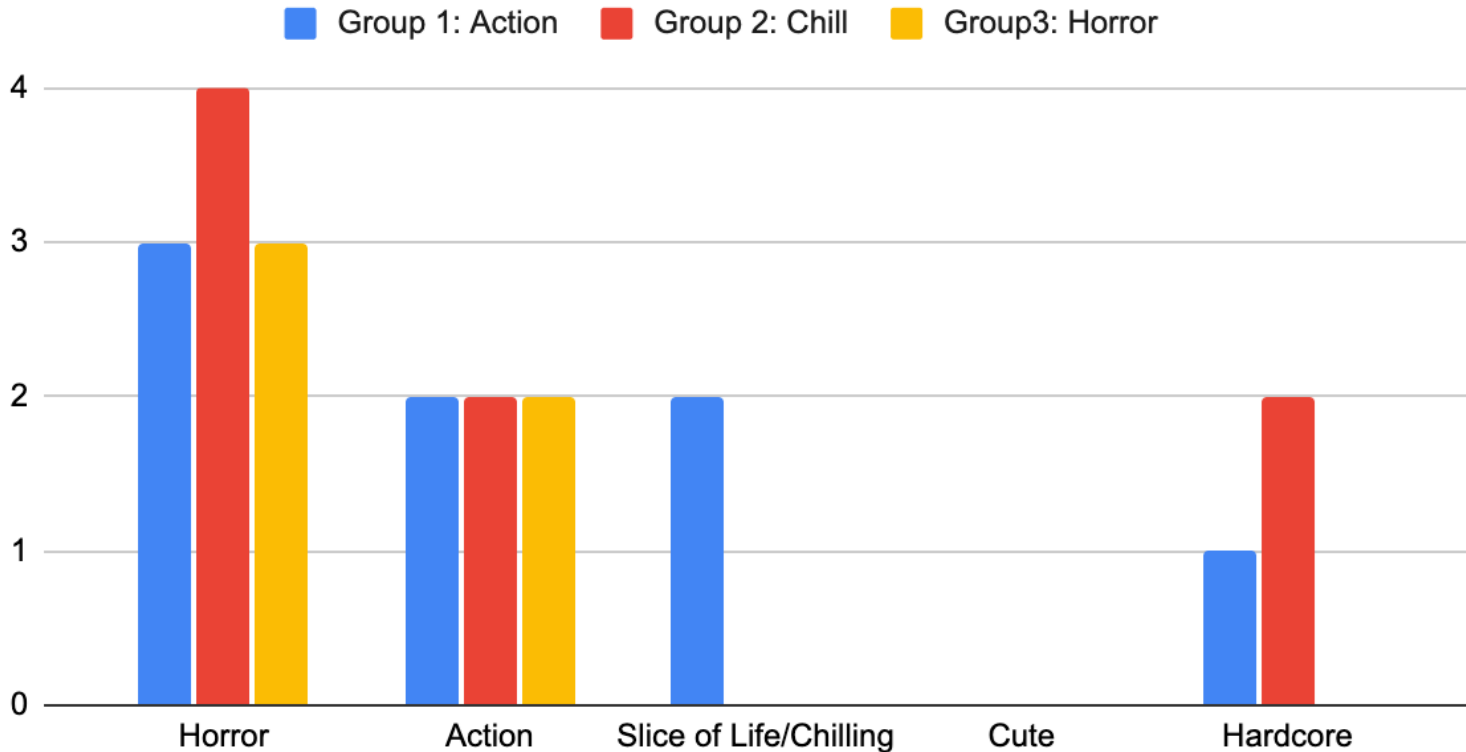
## Number of Participants

Total: 13



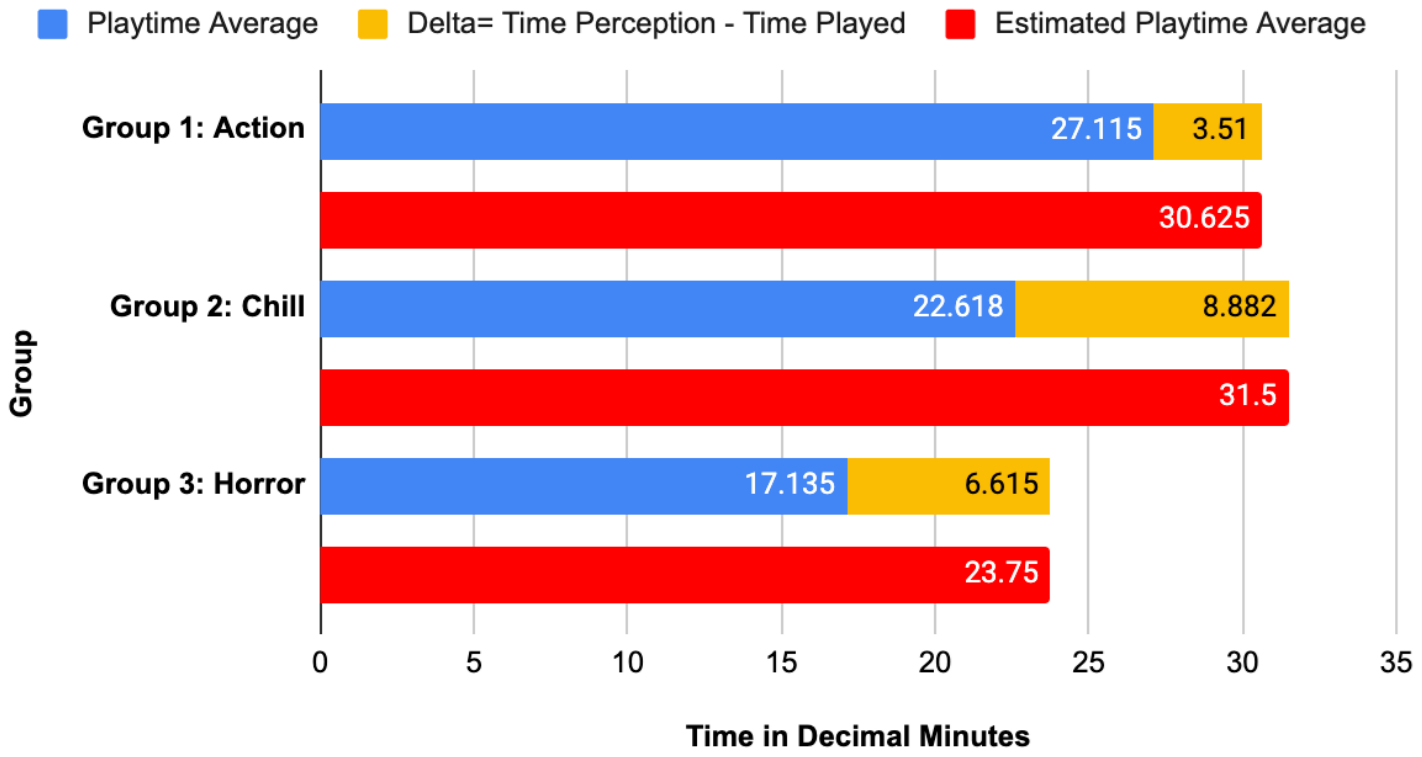


# What kind of music were players expecting going in to this experiment?



# Finding : Time perception with Music Genre

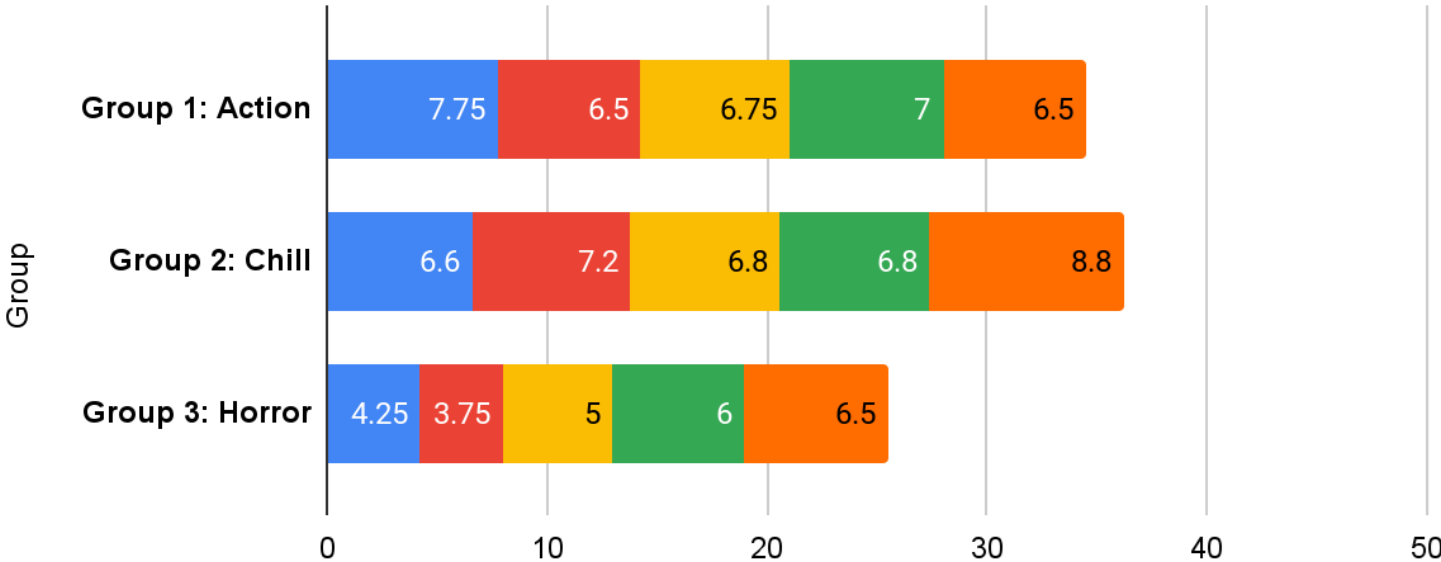
## Demo Playtime Results VS Player Estimated Playtime



# Finding 2: Flow with Music Genre

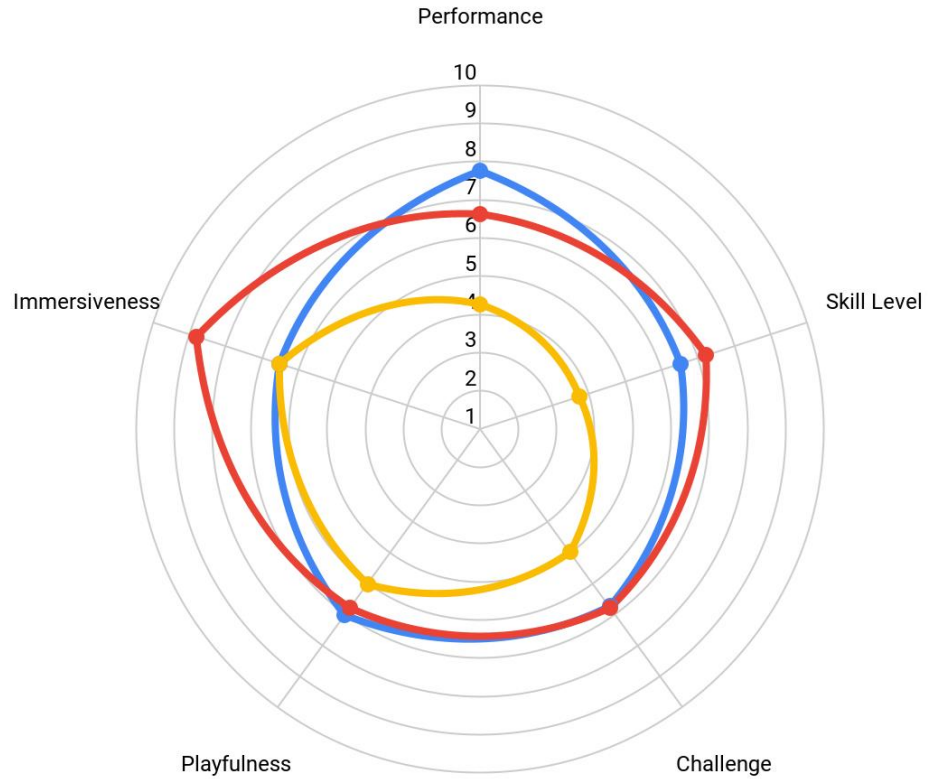
## Total of all 5 Flow Factors

Performance Skill Level Level of Challenge Playfulness  
Immersion in the Environment



Total of all Flow Factors (Up to 10 points each)

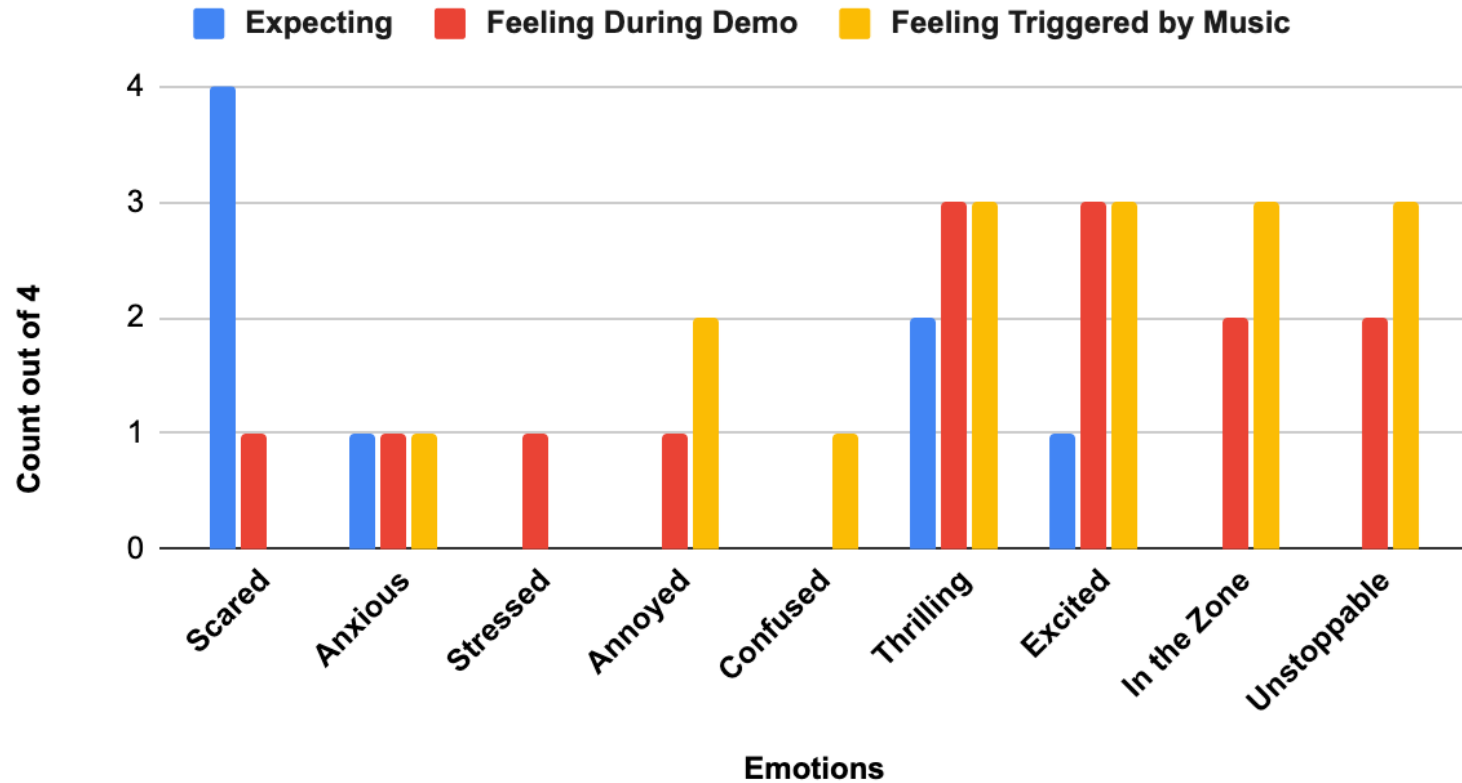
# 5 Factors of Flow



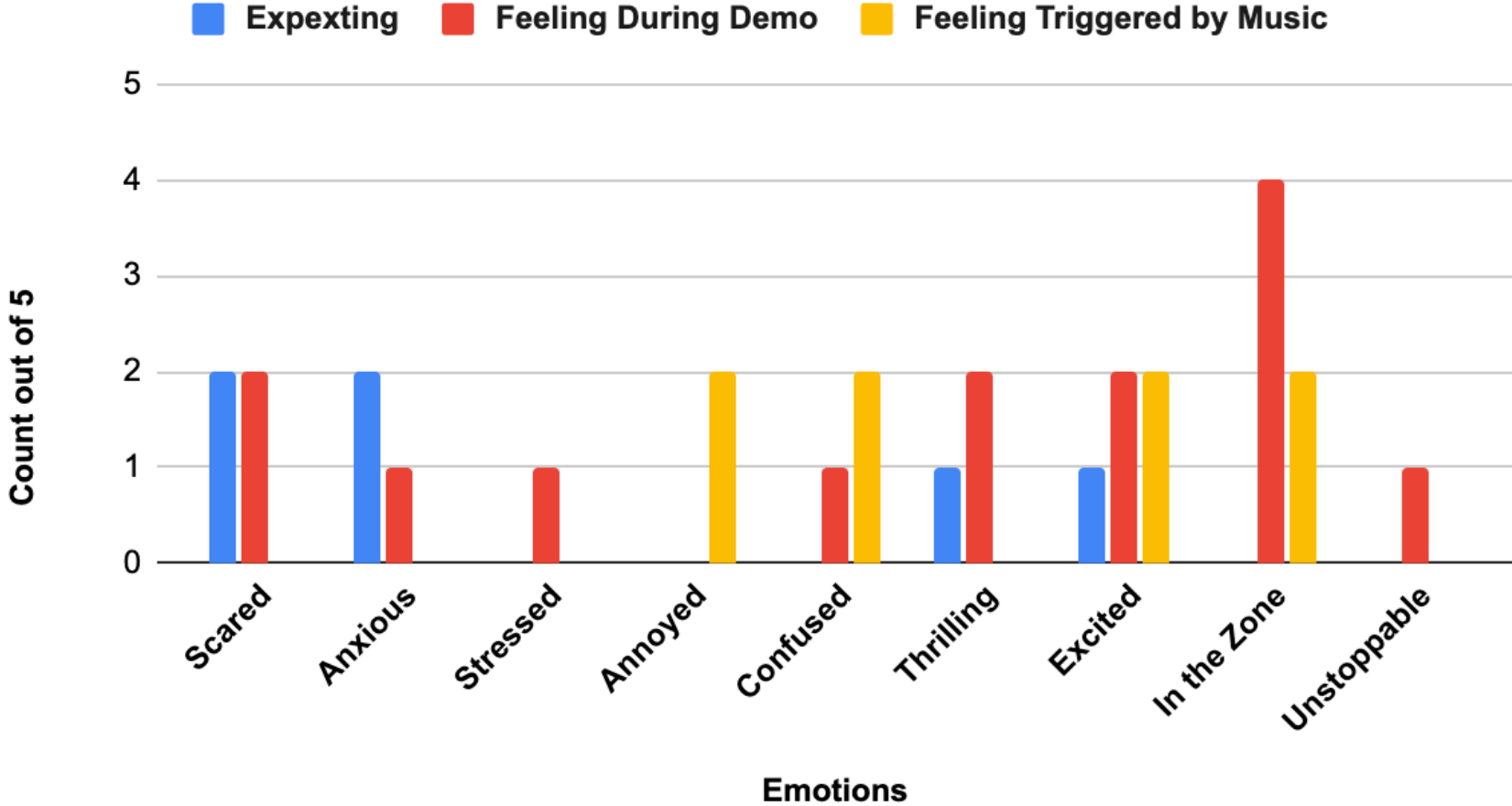
● Group 1: Action ● Group 2: Chill ● Group 3: Horror

# Finding 3: Elicitation and Amplification with Music Genre

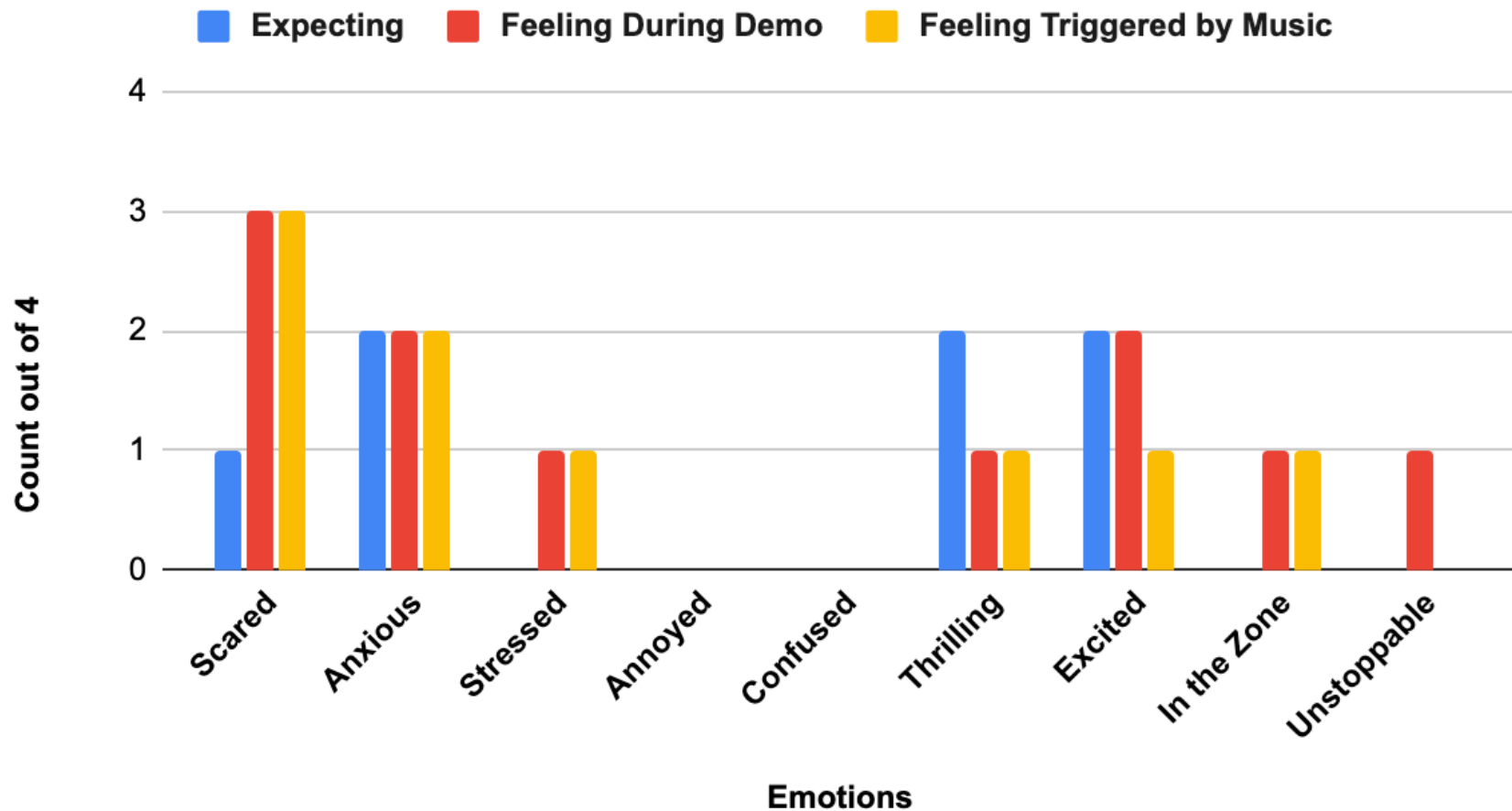
## Group 1: Action - Elicitation and Amplification



# Group 2: Chill - Elicitation and Amplification of Emotions

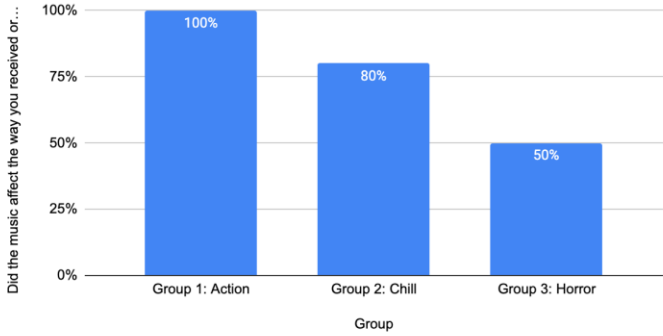


## Group 3: Horror - Elicitation and Amplification

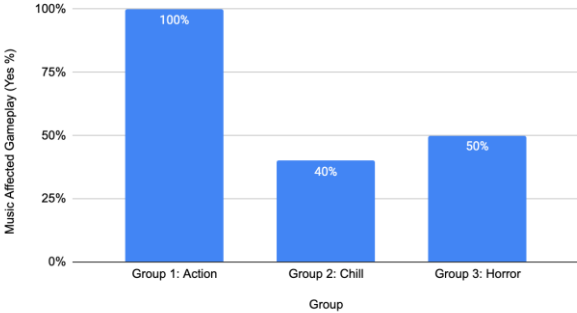


# Findings: Connection at here and there

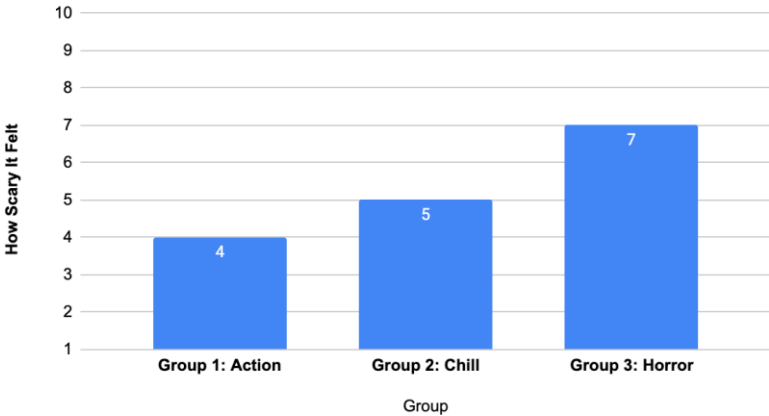
Did the music affect the way you received or felt the feedback of the game?



Music Affected Gameplay (Yes %)



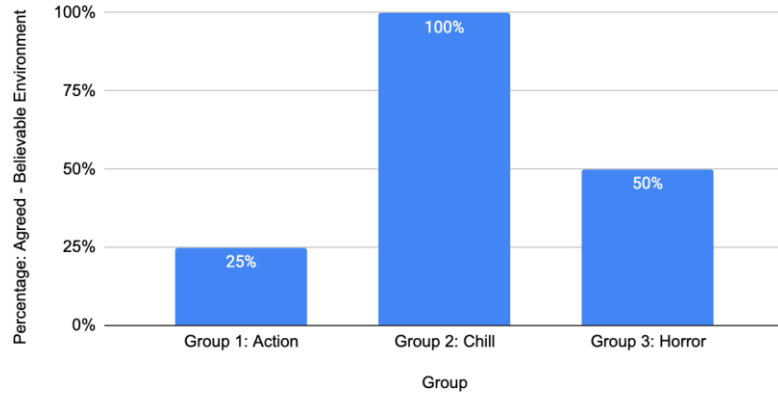
How Scary did the Horror section of the Demo feel?



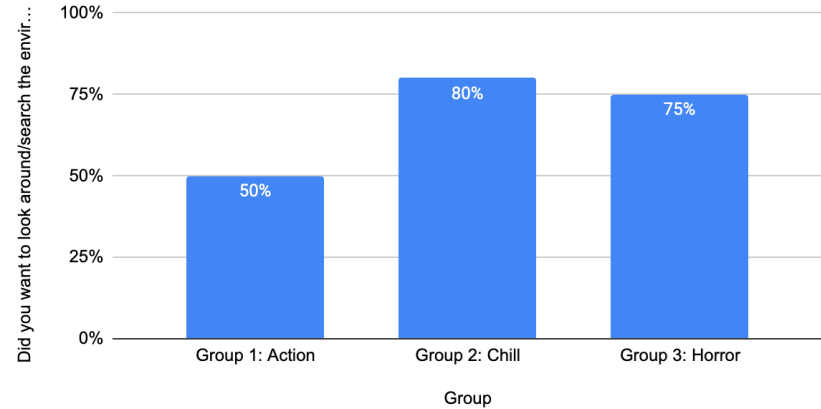


# Case 2

Percentage of Participants that thought the environment was believable

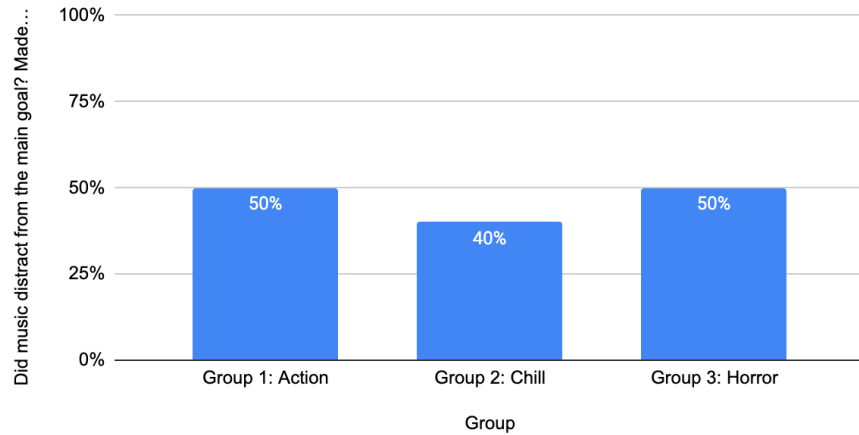


Did you want to look around/search the environment you were in?

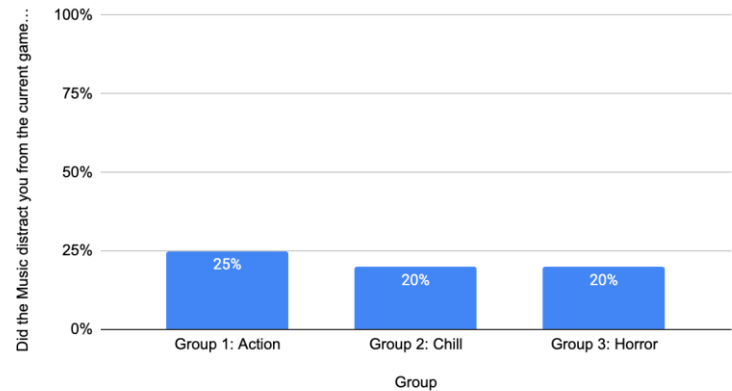


# Case 3: Similar

Did music distract from the main goal? Made you do other things?

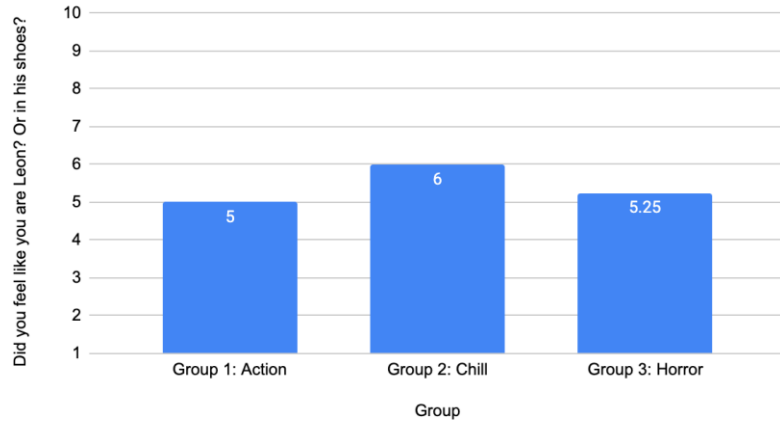


Did the Music distract you from the current game events?

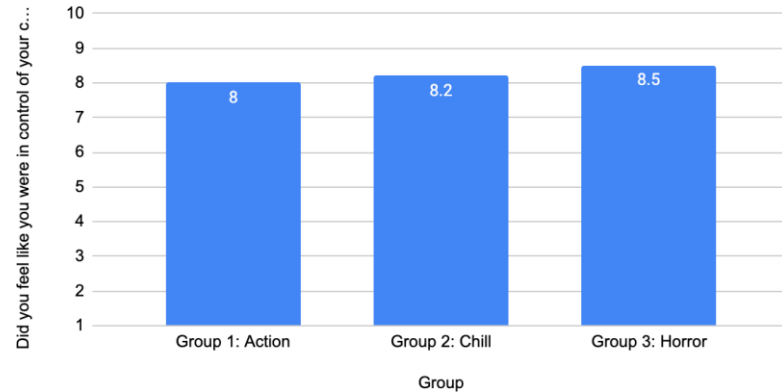


# Other similar slides

Did you feel like you are Leon? Or in his shoes?

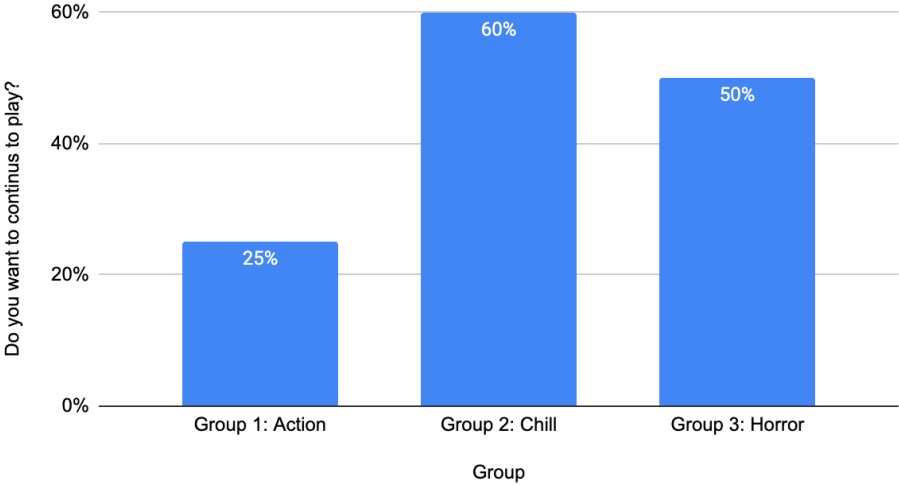


Did you feel like you were in control of your character and your actions?

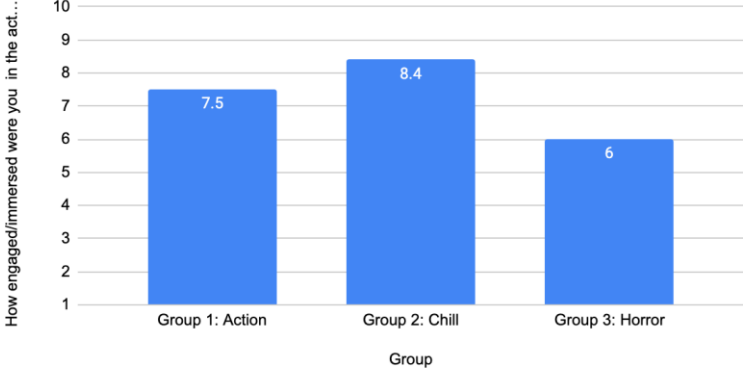


# Finally

Do you want to continues to play?



How engaged/immersed were you in the action section of the demo? How into it were you?



# Individual Responses

# Conclusion

# Limitation

Links: