



Adaptive Soundtracks in Video Games

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Introduction to the Problem

- Music matters in a video game. *Plut, C. and Pasquier, P. (2019)*
- Linear soundtracks become tedious and eventually break immersion in player experiences. *Plut, C. and Pasquier, P. (2019)*
- Despite advantages of Adaptive music, games still choose to use linear soundtracks. *Plut, C. and Pasquier, P. (2019)*

Aim

Discovering what video game soundtrack methods make players feel more immersed during gameplay.

Soundtrack methods

Linear, Adaptive, Generative

Main Theories

Using adaptive/generative soundtracks can improve player immersion in video games.

Much like the same way it's been proven sounds overall have an impact on player emotions. *Thiparpakul, P., Mokekhaow, S. and Supabanpot, K. (2021)*

Similar Products

Galactic Escape – A game made to test the tension that player's experience during gameplay via music. *Plut, C. and Pasquier, P. (2019).*

How Can Video Game Atmosphere Affect Audience Emotion with Sound – A case study to see if video-game sounds effect player emotions during gameplay. *Thiparpakul, P., Mokekhaow, S. and Supabanpot, K. (2021).*

Proposed Solution

- A simple-to-play game of which uses different soundtrack methods.
- Participants wear personal monitoring devices (Such as heartbeat monitor) while playing.
- Questions will be asked after gameplay to receive data unobtainable from monitoring devices.

Next slide shows storyboard for how this solution helps collect data.

Storyboard

SLIDE ONE



Participant is invited to play game after giving consent.

SLIDE TWO



Data will be recorded of personal monitoring device readings during participant gameplay.

SLIDE THREE



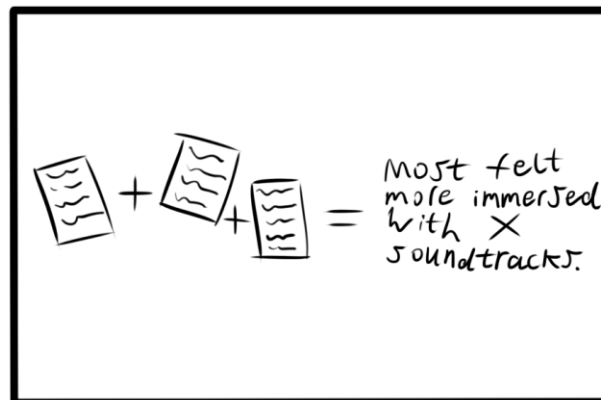
Participant fills in survey after gameplay to collect data unobtainable through readings on personal monitoring devices.

SLIDE FOUR



Data is collected and participant session is over.

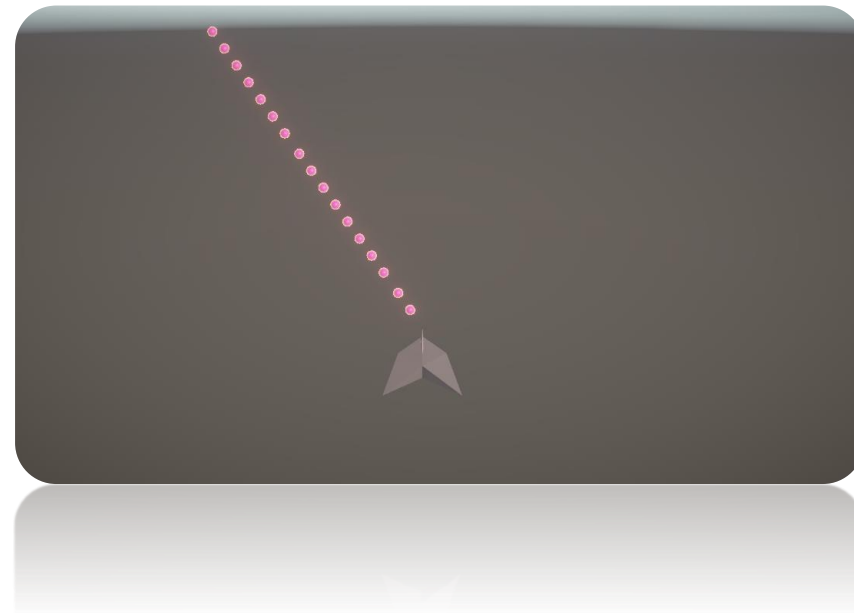
SLIDE FIVE



After enough participants partake, data results are used to find out which method of soundtracks had the greater effect.

Prototyping

- The prototype contains a top-down game scene.
- Controls are kept simple. Simple helps each participant understand the game quickly during research.
- Health and combat mechanics allow opportunities to execute soundtracks that will enhance immersion for the player.



References

Plut, C. and Pasquier, P. (2019). Generative Music in Video Games: State of the Art, Challenges, and Prospects. *Entertainment Computing*, 33, p.100337. doi:<https://doi.org/10.1016/j.entcom.2019.100337>.

Plut, C. and Pasquier, P. (2019). Music Matters: An empirical study on the effects of adaptive music on experienced and perceived player affect. *2019 IEEE Conference on Games (CoG)*. doi:<https://doi.org/10.1109/cig.2019.8847951>.

Thiparpakul, P., Mokekhaow, S. and Supabanpot, K. (2021). *How Can Video Game Atmosphere Affect Audience Emotion with Sound*. [online] IEEE Xplore. doi:<https://doi.org/10.1109/ICIET51873.2021.9419652>.