

# HOW DO POPULAR CINEMATOGRAPHIC TECHNIQUES AFFECT AN AUDIENCES EMOTIVE RESPONSE IN THE HORROR GENRE

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## INTRODUCTION

Throughout the decades, different cinematographic techniques have developed and evolved to present visual media in differing ways according to the message or story being conveyed. (Shaquilla Alexander, 2020) The success of many of these techniques have not been derived from scientific research, but through creative inspiration adopted by industry professionals, thus artistic views are expressed with opinion rather than supported by scientific evidence. (Eric Jaffe, 2007)

The project set out to investigate whether there was a link between the use of cinematographic technique and emotive state of a viewer in the horror genre.

The aim of this study was to select two cinematographic techniques, camera movement and lighting techniques, and for each of the chosen techniques, create two short films in the horror genre. This was to provide scientific evaluation into how the two chosen cinematographic techniques affect audience emotions in practice.

## METHOD

Two short films were produced, both replicating the same sequence, however, each produced using two distinctly different cinematographic techniques. Film 1 focused on camera movement techniques, whereas Film 2 focused on lighting techniques.

A sample audience of 20 were invited to view each film whilst monitoring heart rate throughout. Further quantitative and qualitative data including questionnaires was collected and analysed from the audience after viewing in order to interpret emotive changes.

## IMPLEMENTATION AND RESULTS

A table of average and peak heart rate data, contrasting Film 1 vs Film 2 can be found in Figure 1. Figure 2 represents the choice of film the audience deemed to have the largest emotive response influence.

Figure 3 shows the average magnitude of the emotive response experienced from the participants in Film 1 vs Film 2.

Participants rated their feeling of anxiety as a result of watching each film on a scale of 0-10 in the survey, with 0 being no anxiety being felt, and 10 being very anxious. This can be seen in Figure 4.

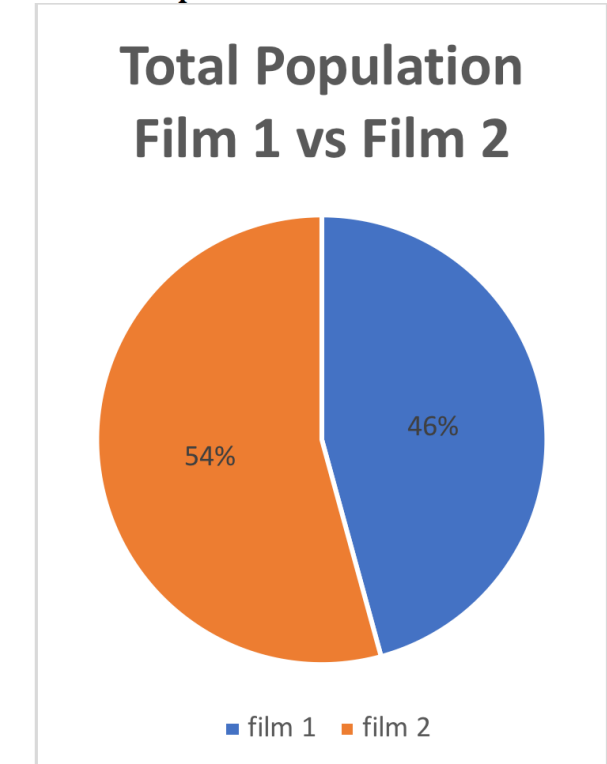
### (Figure 1)

Analysis of Heart Rate Data Film 1 vs Film 2

Analysis of Heart Rate by Film	
Film 1	Beats Per Minutes
Average Heart Rate	90
Peak Heart Rate	103
Film 2	Beats Per Minutes
Average Heart Rate	87
Peak Heart Rate	104

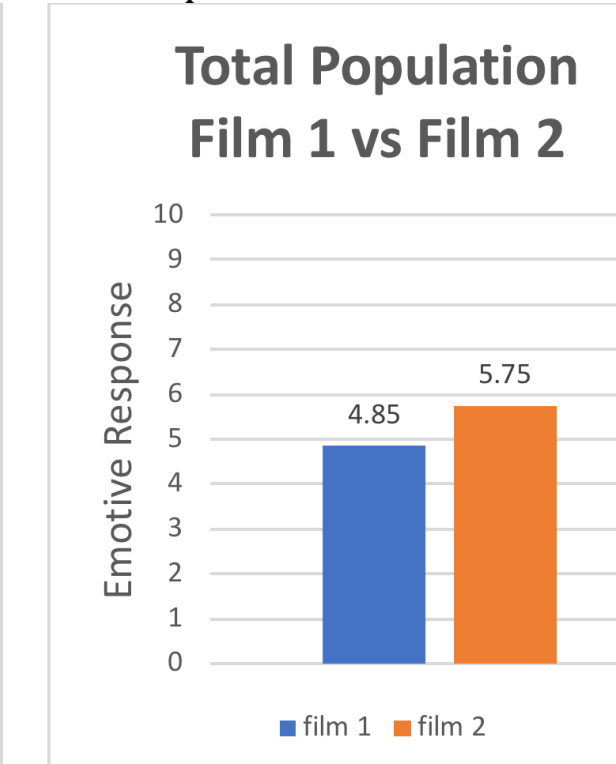
(Figure 2)

Total Population Film 1 vs Film 2.



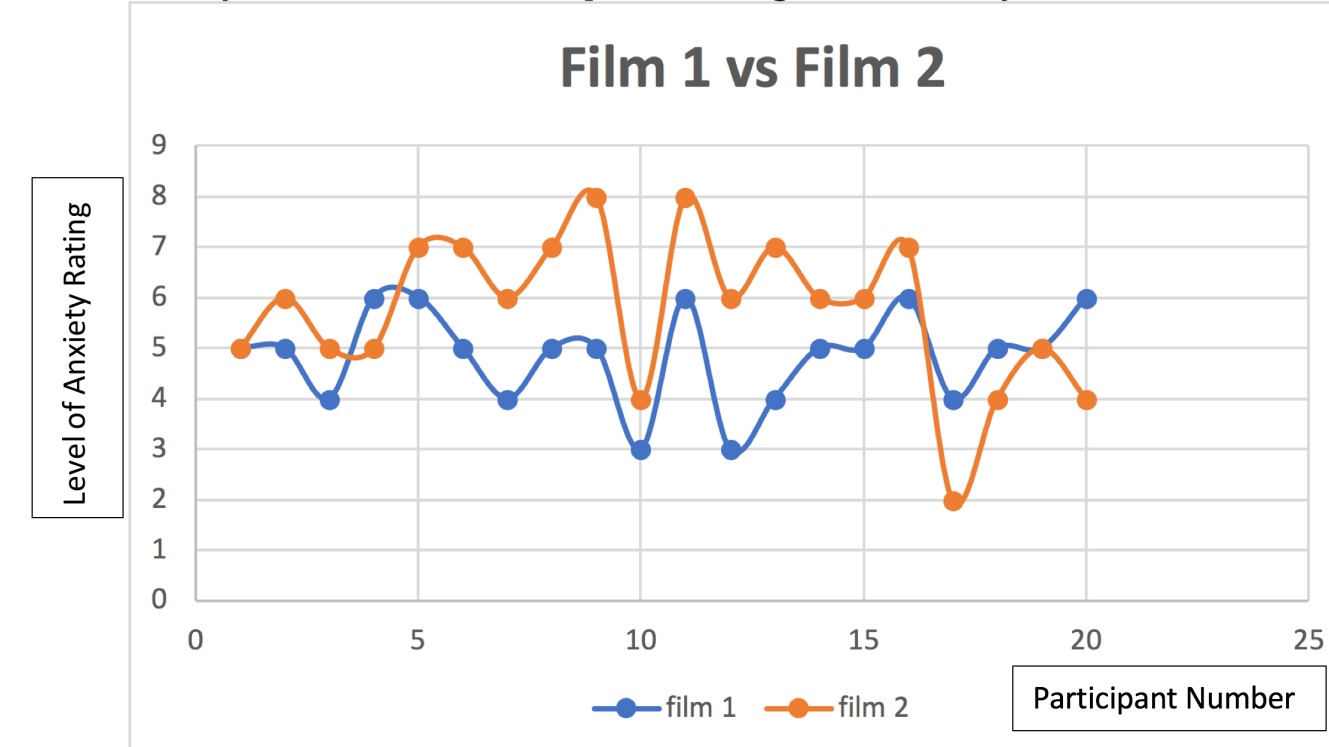
(Figure 3)

Total Population Film 1 vs Film 2.



(Figure 4)

Survey Results From Participants Rating Their Anxiety Levels



## EVALUATION AND CONCLUSION

The data collected from the heart rate monitoring equipment did not indicate any substantial difference between Film 1 and Film 2. What was evident however, was that both films invoked an elevated emotional response in terms of heart rate. In order to quantify the comparison, it was necessary to rely upon data collected from the questionnaire which was very conclusive, showing that participants found Film 2 (Lighting Techniques) to be more emotively influencing than Film 1. It can be observed from Figures 2 and 3 that the majority of the sample audience experienced more heightened emotions whilst watching Film 2 (Lighting Techniques), indicating the higher effectiveness of lighting techniques to influence mood and emotions.

## REFERENCES

Shaquilla Alexander, 2020, The Evolution of Cinema: Full Timeline Explained, So the Theory Goes, viewed 09/09/20, available: <https://www.sothetheorygoes.com/the-evolution-of-cinema/>

Eric Jaffe, 2007, Reel to Real: Psychology Goes to the Movies, viewed 16/11/20. Available from: <https://www.psychologicalscience.org/observer/reel-to-real-psychology-goes-to-the-movies>