

The Brain and The Alarm Clock

Theory

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Abstract

This is a continued research experiment on the theory between the brain and the alarm clock. This experiment was presented at the Undergraduate Research Symposium in the 2023-2024 Academic year. Observational research was conducted with myself as the participant and the researcher in the experiment. I will be doing additional research with Peer- Reviewed journals with dream theories, going to bed at a reasonable hour between 10:00 PM and 10:30 PM. A wake up- time will be set between 6:00 AM and 6:30 AM. The 6:00 AM wake up time is on my cellphone alarm while the 6:30 AM wake up time is on my traditional alarm clock.

Introduction

Using the scientific method, a research experiment was conducted in the 2023-2024 Academic year along with making observations upon waking up in the mornings before school and being organized the night before. The Get-Up and Go technique was a technique that the researcher learned from the reality television show “Supernanny”. Benefits were gained from this technique, like organizational abilities, and the school mornings being less chaotic. There are certain responsibilities to be completed before leaving for school. The first step is to prepare school lunches and clothes the night before and the alarms need to be set according to the wake-up times mentioned in the abstract. Insomnia: a psychiatric condition where I have trouble falling and staying asleep at night due to Generalized Anxiety Disorder or GAD. I take a prescription anxiety medication called Vistaril, to help me feel sleepy and relaxed at bedtime. Although the effect of Vistaril is different for anyone for whom it is prescribed, but for me, the Vistaril takes up to two (2) hours for the full effect. Therefore, I must take my Vistaril early in the evening between 6:00 PM and 7:00 PM to receive the full effect.



Hypotheses

- The alarm sound that will most likely wake me up on time for school mornings is my cellphone alarm because I can change the tone to the alarm after a certain amount of time after my brain ignores it.
- If I go to bed at a reasonable hour, no later than 10:30 PM, then I will feel less sleepy upon waking up.
- With the sounds outside such as the fireworks on New Year’s Eve, will trigger me to have nightmares.

Methods

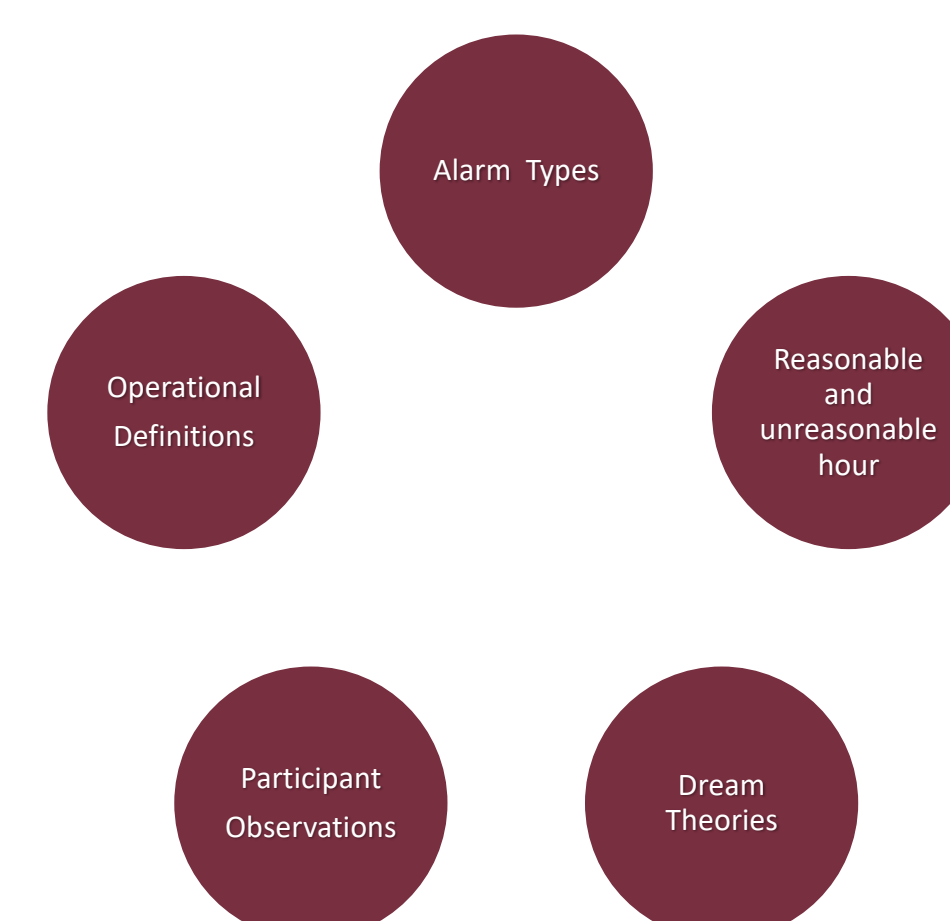
The Brain and the Alarm Clock working theory is tested using a 2x2 experiment with factors of 1) reasonable and unreasonable bedtime and 2) the alarm clock and cellphone alarm.
Dependent Variable: When the researcher got out of bed.
Independent Variables: When the researcher went to bed and the alarm type.

Participants

 = 0
 = 1

Results

The researcher woke up on time on school mornings with the cellphone alarm most often, **supporting hypothesis 1**. The researcher did feel less tired upon waking up on school days when naps were incorporated due to sleep deprivation. The researcher only went to bed at a reasonable hour once during the experiment. After dinner one night, the researcher laid down on her bed deciding that she needed to rest for a few minutes, but a few minutes turned out to be three hours and fifty-nine minutes according to the Fitbit App.



Discussion

This project consisted of a two-month experiment testing the brain’s sensitivity to certain alarm sounds. To help themselves wind down for the night, the participant researcher established a bedtime routine and a Get-Up and Go Technique to help them prepare for the next school day.

The results of this study indicated how much time it took the participant to get out of bed using either a traditional alarm sound or a less familiar cellphone alarm sound. It took the participant less time to get out of bed with the cellphone alarm than it did with the alarm clock. This study successfully implemented the scientific method to test what type of alarm is the most effective in waking up a participant researcher. Use of a bedtime routine did not aid in going to bed at a reasonable hour when this experiment was conducted in the 2023-2024 Academic year. This research was both aided and limited by the researcher being the designer and the participant in this study.

Conclusions

Additional research was done with peer-reviewed journals. Operational definitions were written in the references section when this study was conducted in the 2023-2024 academic year. Additional benefits were gained through supporting the second hypothesis and testing additional hypotheses with sources.

References

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