

## DEMOS.SCIENCE

### IMPROVING PRODUCTIVITY IN COVID-19 LOCKDOWN: CAN MUSIC ENHANCE CONCENTRATION?

#### STUDY INFORMATION SHEET

##### 1. *What is the purpose of this research?*

This is a pilot study to showcase Demos.Science Education as an experiential learning platform to engage and educate the public on randomized trials. It does this by allowing members of the public to participate in a 'light-hearted' randomised trial on the impact of music on concentration. It is not intended to be a rigorous scientific study on the impact of music on concentration.

If you choose to participate in the pilot study, you will have an opportunity to learn how a randomized trial works, experience what it means to participate in a randomized study, and acquire a better understanding of key terms and concepts used in the experimental research process.

##### **Background**

As the coronavirus pandemic unfolds, billions of people around the world are having to change how they live, study and work. At its peak, an estimated 1.5 billion children in 188 countries were out of school, and a third of the global population was under some form of 'lockdown'. As we transition to a 'new normal' with more of us remote working, we need to understand we can better concentrate and improve our productivity in confined and shared spaces.

Music is often touted as enhancing concentration and focus. In this study, we consider how (and to what extent) music impacts focus and concentration. We will randomly assign individuals to two testing groups, asking each participant to complete a 'concentration' exercise, known as a Sustained Attention to Response Test (SART) whilst listening to a particular type of music. There will be a third group, who will act as the control group, completing the SART test whilst listening to white noise. The participants will then be scored on the basis of their performance in the SART, and data analysis will be undertaken of the test scores across the study groups to assess whether a correlation *does* exist between music and concentration. The overall aim of the study is to determine whether listening to music can enhance concentration.

##### 2. *Who is leading the study?*

The Study author is Matt Mayer, who may be contacted at [info@demoss.science](mailto:info@demoss.science)

##### 3. *Who can take part in this study?*

The pilot study is open to members of the public aged 18 years or older.

Study participants must have access to a computer with an internet connection. Participants will also need to have access to speakers (or headphones) and a standard keyboard. Participants must be able to operate a computer and navigate a keyboard unassisted.

##### 4. *What is involved for a study participant?*

The experiment will take under six minutes to complete. You will be asked to settle yourself comfortably at a computer, read the instructions, and then take a three-minute SART 'concentration' test. The SART will involve you looking at a series of flashing numbers over a three-minute period, pressing a key (spacebar) as items pop-up and refraining from pressing when a specific number is shown.

**5. *Do I have to provide any samples?***

You will not be asked to provide biological samples of any kind.

**6. *Will there be any risks or harm to me if I participate in this study?***

When you do the SART-concentration test, you may experience some mild anxiety about your performance in the test. However, this should pose no greater risk than what you would experience in the course of a normal day, and we do not anticipate that these effects will continue beyond the test.

**7. *What benefit do I get from participating in this study?***

There is no envisaged direct benefit to you for your participation in the study. However, by volunteering your time to participate in this study, you will be learning about randomised control trials, while also getting a sense of how music affects your concentration. In some respects, this information may have benefit for you, as we all transition to a 'new normal' in which most of us work remotely and productivity in at home becomes increasingly important.

**8. *Do I have to participate in this study?***

Your participation in this study is completely voluntary. It is your decision alone to consent to participate in this study. It is important that you know that you are free to change your mind and stop participating in this study at any time (prior to the completing the SART-test) by simply closing your internet browser. There will be no negative consequence if you change your mind during the SART-test and withdraw from this study.

**9. *Do I have to provide personal information about myself?***

You will be asked your age, gender, country of birth or nationality and place of residence. However, all data will be anonymised, which means that it will not be possible to trace your answers/information back to you.

**10. *What will happen to my data?***

Upon completion of the study, the anonymized data will be analysed by Demos team members. The anonymized data will be stored on the computers of the research team and posted on the Open Science Framework. This is a public website for sharing scientific data, which will allow other researchers to also use of the anonymized data. The data will be kept for one year after the completion of the study.

**11. *Data Protection***

All studies conducted on the Demos.science platform adhere to the [Data Protection and Privacy Policy](#)

**12. *Will the findings of this study be accessible to the public?***

The findings of the study will be presented as results on the Demos.science website. These results may also be used as evaluative findings on the efficacy of the Demos.science as a public engagement tool in a peer-reviewed publication. If you would like to be notified of publications or updated on the results of the Pilot Study, please register on the Demos.Science webpage to receive regular emails.

**13. *Has this study been reviewed by an ethics committee or oversight body?***

This Pilot Study complies with the Code of Conduct and Ethical Guidelines issued by University of Oxford. It has been reviewed by the Oxford Tropical Research Ethics Committee (OxTREC).

**14. *What if I have any questions or want to raise a concern?***

We welcome and encourage any feedback that you may have. Please direct your questions and concerns to the Demos.science project manager, Sheila Varadan, at [info@demoscience.org](mailto:info@demoscience.org).