

Participant Information Statement

Research Study: How does mental visualisation influence cognitive ability and memory?



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1. What is this study about?

We are conducting a research study investigating how mental visualisation influences cognitive ability and memory. During this experiment (conducted via Zoom), you will take part in an online game and a Virtual Reality (VR) task. In the VR task, you will wear a VR headset provided by the research team and will be immersed in a VR environment. During the session, we will assess your perceptual experiences, your ability to recall aspects of both tasks, and will ask you to respond to some self-report questions of a non-personal nature (collected online via Qualtrics software). Your responses to these items will be confidential and no one other than the researchers will have access to them.

You have been invited to participate because you responded to an advertisement about the study. This Participant Information Statement tells you about the research study. Knowing what is involved will help you decide if you want to take part in the research. Taking part in this study is voluntary.

Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about.

2. Who is running the study?

The study is being carried out by the following researchers:

- Prof Ben Colagiuri, Senior Lecturer, University of Sydney
- Dr Kirsten Barnes, Postdoctoral Research Associate, University of Sydney
- Mr Winston Tan, PhD Student, University of Sydney

Mr Winston Tan is conducting this study as the basis for the degree of Doctor of Philosophy (Science) at The University of Sydney.

This study is being funded by the Australian Research Council.

3. Who can take part in the study?

We are seeking healthy adults who do not have extensive prior experience with VR (i.e., have used VR no more than 10 times previously). Those who have a medical condition that increases the risk of nausea, affects postural stability or increases sensitivity to motion (including those with epilepsy, pacemakers, and pre-existing binocular visual abnormalities (e.g. Amblyopia 'lazy eye', Strabismus 'double vision')) or are pregnant are ineligible to participate. For the study, you must also have a smartphone with a screen size between 4.1 and 6.3 inches (10.4cm – 16.0cm), measured diagonally from the bottom left to the top right corner (note: iPhones 6 – 8 Plus, X, and 11 fit, but Pro Max does not), and the latest version of the YouTube application installed on the device. Participants should not eat the hour before attending the session. You should not eat the hour before attending the session. If you are experiencing an inner ear infection or migraine at the time of testing, you are requested not to participate but to rearrange your session time.

Please don't talk to other people about the study because prior knowledge of the experimental aims and methods may alter results and future research.

4. What will the study involve for me?

If you decide to take part in this study, you will be asked to

- ✓ Attend a single 30-minute session, conducted in a location of your choosing, via Zoom
- ✓ Take part in the session with two other participants
- ✓ Provide some basic demographic data, e.g., age, gender
- ✓ Complete some basic questions about your current state of well-being
- ✓ Play an online game, and wear a VR headset and be immersed in a virtual environment
- ✓ Respond to some questions about your experiences of the game and VR

5. Can I withdraw once I've started?

Being in this study is completely voluntary and you do not have to take part.

Your decision will not affect your current or future relationship with the researchers or anyone else at The University of Sydney.

If you decide to take part in the study and then change your mind you can withdraw by emailing Mr Winston Tan at winston.tan@sydney.edu.au. If you decide to withdraw during the study session, you can inform the experimenter that you wish to withdraw. There will be no negative consequences should you wish to withdraw.

If you choose to withdraw, we will not collect any more information from you. Please let us know at the time you withdraw what you would like us to do with information we have collected about you up to that point.

6. Are there any risks or costs?

There are minimal risks associated with participating in this study. An experimenter will oversee the experiment at all times and you will be able to terminate the study at any point without explanation. All participants will view the VR video sitting down to eliminate the chance of instability or falls.

VR environments will contain heights (e.g., a rollercoaster ride). Those who have specific phobias surrounding heights may wish to consider the impact of the VR setting prior to signing up for the study. All participants will be able to withdraw at any point of the study without penalty. However, we recommend that those who are likely to have an adverse reaction to the content of the VR do not sign up.

7. Are there any benefits?

All participants (recruited via Facebook, SONA Paid, or SONA Psych) will receive a VR headset via post that will be theirs to keep if they complete the study. Those who do not attend the session will be expected to return the headset in undamaged condition (postage provided). First and second year psychology students participating via SONA Psych will additionally receive 0.5 hours of course credit.

8. What will happen to information that is collected?

By providing your consent, you are agreeing to us collecting information about you for the purposes of this study.

Any information you provide us will be stored securely and we will only disclose it with your permission unless we are required by law to release information. We are planning for the study findings to be published. You will not be individually identifiable in these publications.

Recordings of the Zoom meeting will also be made. This is essential for specific parts of the task to be coded. Zoom meetings are encrypted for privacy and only the research group will have access to this data. Recordings will be identified via anonymised participant IDs and will be stored in a password protected folder on a University server. Details will never be passed to any third party.

We may use your information to contact you regarding future studies if you consent to this in the participant consent form.

9. Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study. You can tell us that you wish to receive feedback by ticking the appropriate box on the Participant Consent Form. This feedback will be in the form of a one-page lay summary. You will receive this feedback after the study is finished.

10. What if I would like further information?

When you have read this information, the following researcher/s will be available to discuss it with you further and answer any questions you may have: If you would like to know more at any stage during the study, please feel free to contact Mr Winston Tan via email winston.tan@sydney.edu.au, Prof Ben Colagiuri either via phone 9351 4589 or email ben.colagiuri@sydney.edu.au or Dr Kirsten Barnes via email kirsten.barnes@sydney.edu.au

11. What if I have a complaint or any concerns?

The ethical aspects of this study have been approved by the Human Research Ethics Committee (HREC) of The University of Sydney HREC [2022/353] according to the *National Statement on Ethical Conduct in Human Research (2007)*.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the University:

Human Ethics Manager
human.ethics@sydney.edu.au
+61 2 8627 8176

This information sheet is for you to keep