

Information Sheet

Vocabulary Vitality: Tracing Mental Flexibility Across Adulthood

Participant Information Sheet

Thank you for taking the time to read this information sheet about our research project. Before deciding whether you wish to take part or not, it is important to understand why we are conducting this study, what you will be asked to do, and what will happen to the results.

What is the purpose of this study?

As we age, our cognitive abilities, including memory and language production, may undergo changes. This study aims to investigate how performance on verbal fluency tasks, which ask individuals to produce words related to a specific category or starting with a particular letter within a limited time frame, varies between different age groups. By examining verbal fluency across the lifespan, we hope to gain insights into the natural cognitive changes that occur as we grow older.

How are we going to do this?

We will ask you to complete a series of verbal fluency tasks designed to measure specific aspects of speech, such as how many examples you can produce and the diversity of your vocabulary. The study will take place remotely via Zoom video calls. By analysing your speech, we aim to better understand the cognitive processes involved in language production and how they may be affected by age. In addition to these tasks, participants will be asked to complete a short demographic questionnaire and a standardized test of reading ability.

Who is invited to take part?

We are inviting adults without any diagnosed memory or thinking problems to take part in this study. While the focus is on healthy ageing, this research will help build our understanding of conditions like dementia. By looking at how memory and thinking abilities naturally change as people get older, we can better identify significant declines that may be a warning sign of dementia or other brain diseases.

To take part in this study, you must:

- Be a fluent English speaker
- Be between 20-35 years old, 40-60 years old, or 65-80 years old
- Not have any existing neurological (e.g., history of stroke, Parkinson's Disease) or dementia diagnosis (e.g., Alzheimer's Disease)
- Have access to a laptop or desktop computer (you cannot take part on a smartphone or tablet)

Do I have to take part?

No. Participation in this study is entirely voluntary, and you may withdraw at any time without providing a reason. If you decide to withdraw, we will respect your decision and cease data collection immediately. Additionally, we are happy to discuss what

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will happen to any data that has already been gathered up to the point of your withdrawal.

What will I be asked to do?

Participants will be asked to take part in an online session where they will complete different verbal fluency and cognitive tasks. These will involve generating words under timed conditions, for example, names beginning with the letter B. For certain tasks, you will need to use your computer while also doing some verbal tests at the same time. You will also be asked to complete a standardised reading test and a short demographic questionnaire. The study should take approximately 30 minutes. No special preparation will be required, and you will receive detailed instructions for each task. Your speech will be audio-recorded during some of the activities.

What are the benefits?

You will not personally benefit from this research. However, this study may contribute to a better understanding of how verbal fluency and cognitive abilities change naturally across the lifespan in healthy individuals. This research will increase our knowledge of how our memory and thinking abilities change as we get older, which could lead to improved ways of detecting dementia earlier.

You will also receive a £5 Marks & Spencer gift voucher as a thank you for giving us your time 😊.

Are there any risks?

There are no known risks associated with participation in this study. The tasks will take about 30 minutes to complete, and you will be offered regular breaks between tasks.

Will I receive any feedback?

You will not receive individual feedback on your task performance. However, we will send you a newsletter once the study is completed, outlining the overall results and findings of the research. Additionally, we can provide you with copies of any written publications that result from this research.

What kind of information will the study collect about me?

The study will collect demographic information, including your age, gender, first language, education level, and some questions about your neurological and psychiatric health. Additionally, we will record your voice while you complete the various verbal fluency and cognitive tasks.

What about confidentiality?

All the information you provide during this study will be treated with complete confidentiality. Although voice data is inherently identifiable, your recordings (along with questionnaires and cognitive test scores) will only ever be identified with a

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unique numeric ID unique to you. We will store your voice data for three years after the study end date to allow the data to be fully analysed and interpreted. After this period, the voice data will be deleted. We will store fully anonymised transcripts of your voice data indefinitely.

Only certain members of the research team will have access to the linkage between your ID code and your name, enabling them to identify you. Your personally identifiable information, such as your name and contact details, will always be password-protected and stored separately from your research data.

Your data will be stored in a password-protected database on a server based in the United Kingdom and on networked drives at the University of Sussex.

We may share your research data in a completely anonymised format with other researchers via the Open Science Framework. This approach enables our scientific peers to evaluate the quality of our research findings. Furthermore, it means that your data may assist future researchers in answering novel inquiries about cognitive aging and language processing.

We will keep your signed consent forms for six years from the date of signature, allowing any future questions or concerns to be addressed adequately.

What will happen to the results of this study?

The results of this study are for research purposes only. The findings will be written up and may form part of the researchers' academic work. They may also be communicated at scientific conferences or published in peer-reviewed scientific journals.

Who is organising the research?

This research is being conducted by researchers at Brighton & Sussex Medical School and The University of Sussex.

Who has approved this study?

This study has been approved by the appropriate ethics committee at The University of Sussex.

If you have any questions or concerns about this study, please do not hesitate to get in touch with a member of the research team.

Study Organization & Oversight

This study is organized by the University of Sussex School of Psychology and overseen by its research ethics board to ensure appropriate safeguards are upheld throughout. You can find contact details for study staff and ethics committees at the end of this sheet. Please reach out with any questions or to report concerns about the conduct of this research.

Insurance

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The University of Sussex has insurance in place to cover its legal liabilities in respect of this study.

Contact the Researchers

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