



Participant Information Sheet

Study title

Cast Your Sign! – Enhancing Sign Language Learning through Virtual Reality Gamification

Researcher's name

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Supervisor: Laurissa Tokarchuk

Queen Mary Ethics of Research Committee reference number:

QMERC20.565.DSEECs24.019

Invitation paragraph

I would like to invite you to participate in a research study. Before you decide whether or not you'd wish to participate, it is important for you to understand why the research is being conducted and what it would involve for you. Please take the time to read the following information carefully and discuss it with the others if you wish. Ask questions if there is anything that is unclear or if you would like more information.

What is the purpose of the study and what would taking part involve?

The purpose of this study is to investigate the enhancement of learning sign language through a virtual reality (VR) game. There are several mediums that offer sign language learning such as online videos, apps and traditional teaching courses. However as of the time of this study, there are no current commercialised VR applications that teach sign language. Hence, this research aims to look at the potential of VR on the motivation and learning engagement of sign languages.

By taking part in this study, you will be involved in playing a VR game to learn sign language. Specifically, you will be using your hands to replicate signs that represent letters in the American Sign Language (ASL), through the hand-tracking feature supported by the VR headset. You will then be asked to complete a questionnaire to rate your experiences. The estimated time of completion can take at least one hour, but this may be longer should you choose to keep playing the game as you wish. It is recommended that you play the game for at least 30 minutes to understand how it works and to provide accurate responses for the questionnaire, which will take 15-20 minutes to complete. Your feedback will be used to inform the findings of this study.

Why am I being invited?

You are being invited to participate in this research study because you are over 18 years old and you are capable of playing the game to learn sign language. You also own a VR headset or have access to one in order to run the application.

Do I have to take part?

Participation is entirely voluntary and your decision will be respected. The participant information sheet is designed to help you decide whether you wish to participate or not. If you decide to take part, you will be asked for your consent before beginning the study. Should you change your mind, you will be free to withdraw at any time prior to the research submission with no penalties or needing to provide a reason.

What are the possible benefits of taking part?

Benefits of taking part includes the opportunity to learn sign language in an immersive environment using VR technology. Your feedback can contribute to the research and development of other similar applications, but can also help communities relevant to sign languages, virtual realities and educational gamification.

What are the possible disadvantages and risks of taking part?

There are no significant disadvantages or risks identified. However, participants with existing hand conditions or concerns (injuries, arthritis, etc.) or any other related factors may experience discomfort, as the game requires movement of hands to replicate the signs.

Some participants may also experience motion sickness or discomfort while using the VR headset. If so, it is recommended that you quit the game, or do not prolong the gameplay. You also have the option to discontinue at any time should the game cause intense discomfort.

Please proceed with this study if you are comfortable using your hands and a VR headset to play the game.

Expenses and payments

There are no expenses associated with this study and you will not receive monetary compensation. Your participation is voluntary and your contribution to this research will be greatly appreciated.

What information about me will you be collecting?

Your feedback provided through the questionnaire will be collected to inform the findings of the study. Personal information (such as age and gender) will be collected only for demographic purposes. All data collected will be anonymised and therefore, will not be identifiable for your privacy.

How will my data be stored and who will have access to it?

Your data will be stored in a fully anonymised format and only the researcher will be able to access it. The questionnaire data will be securely saved in Microsoft Forms.

When and how will my data be destroyed?

Upon the completion of the project and submission, all collected data will be destroyed in accordance with Queen Mary University of London data policies and guidelines.

How will my data be used and shared?

Your data will be used only for research purposes, and will be published in an anonymised format for a dissertation report. No third-party will have access to the data that can identify you.

Under what legal basis are you collecting this information?

Queen Mary University of London processes personal data for research purposes in accordance with the lawful basis of 'public task'.

Please read [Queen Mary's privacy notice for research participants](#) containing important information about your personal data and your rights in this respect. If you have any questions relating to data protection, please contact Queen Mary's Data Protection Officer, Queens' Building, Mile End Road, London, E1 4NS or data-protection@qmul.ac.uk or 020 7882 7596.

What will happen if I want to withdraw from this study?

If you choose to withdraw from this study, any data collected will be discarded and destroyed promptly. You may also request access to the information you provided for specific destruction of data. It may not be possible to discard data after the project submission, however all information will be anonymised.

What should I do if I have any concerns about this study?

If you have any concerns about the manner in which the study was conducted, in the first instance, please contact the researcher(s) responsible for the study. If you have a complaint which you feel you cannot discuss with the researchers then you should contact the Research Ethics Facilitators by e-mail: research-ethics@qmul.ac.uk. When contacting the Research Ethics Facilitators, please provide details of the study title, description of the study and QMERC reference number (where possible), the researcher(s) involved, and details of the complaint you wish to make.

Who can I contact if I have any questions about this study?

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