

# **An Examination of Relationships Between Musical Memory, Playing by Ear and Levels of Ear Training**

Dear Participant

You are being invited to take part in a MSc student research study. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Feel free to ask me either in person or by email ([crayb001@gold.ac.uk](mailto:crayb001@gold.ac.uk)) if there is anything that is not clear or if you would like more information. Please take time to decide whether or not you wish to take part.

## **What is the purpose of this study?**

Whilst research into musical memory and playing by ear has been conducted in the past, prior to technological advances all data had to be collected on recording devices and analysed by hand by an expert. The potential scope of such a study was limited due to the evaluation methods required - such data collection and analysis was laborious and an analyst's judgements at risk of being subjective. Now that technology is available to collect and analyse this data, the 'noise' in reliability of human judgements can be considerably reduced and the process significantly streamlined, creating opportunities for more detailed investigation and, through online testing, the opportunity to reach a more representative sample of the population.

We now have an opportunity to assess multiple aspects of musical memory using a computational approach. The newly created 'Playing by Ear' test will measure playing by ear and melodic memory. You will also be asked to complete some questions from the LongGold battery of tests, including sections of the Gold-MSI questionnaire, a melodic discrimination test, and a visuo-spatial working memory test (Jack & Jill). This will give us the opportunity for extensive testing of musical memory, playing by ear, and their correlation with other cognitive skills such as working memory.

## **Why have you been chosen?**

You have been asked to participate because your musical background and experience match the group we wish to study. As participation is entirely voluntary, it is up to you to decide whether to take part. If you do decide to take part, you will be given this information sheet to keep and be asked

to sign a consent form. If you decide to take part, you are still free to withdraw at any time and without giving a reason.

### **What will happen to you if you take part?**

The testing will be completing in a single session. You will be completing the tests using an online software which will record, collect, and analyse the data. You will hear short melodies and be prompted to play these melodies back from memory. Each attempt will be recorded, and you can have up to 3 attempts at each melody. The test should last 10-15 minutes. Testing of adults will take approximately 30 minutes.

Whilst there is no direct benefit to you in taking part, we hope that this study will help in the development of open-source software that can be of educational value in terms of developing musical memory and playing by ear skills.

### **Will taking part in this study be kept confidential?**

All information which is collected about you during research will be kept strictly confidential. Any information about you which leaves the University will have your personal details removed so that you cannot be identified from it.

### **What will happen to the results of the research study?**

The results of this research will be published in my student thesis. Please contact me if you would like a copy of the results? Please note, you will not be identified in any report/publication.

### **Who has reviewed the study?**

The study has been reviewed by the ethics committee of the Psychology Department of Goldsmiths, University of London. Goldsmiths is committed to compliance with the Universities UK Research Integrity Concordat. You are entitled to expect the highest level of integrity from our researchers during the course of their research. However, if you have any concerns about your experience, please contact the chair of the ethics committee Dr Daniel Müllensiefen ([d.mullensiefen@gold.ac.uk](mailto:d.mullensiefen@gold.ac.uk)).

Thank you for your time and for considering joining this study, your support is much appreciated. Please contact me if you would like a copy of the results (Clare Raybould, [crayb001@gold.ac.uk](mailto:crayb001@gold.ac.uk)), or contact my project supervisor Dr Daniel Müllensiefen ([d.mullensiefen@gold.ac.uk](mailto:d.mullensiefen@gold.ac.uk)).