



Queen Margaret University  
EDINBURGH

## Information Sheet for Parents/Carers of Potential Child Participants

### ***“Coarticulation and tongue differentiation in children between three and thirteen years old” (13-year-olds)***

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This study uses ultrasound to investigate tongue movements during the pronunciation of some vowel-consonant sequences in speech, and to establish developmental trends in speech production from childhood to adolescence. This research is being funded by a research grant from the Economic and Social Research Council (ES/K002597/1).

Ultrasound is subject to rigorous safety assessments. At all levels of intensity used for diagnostic imaging, there are no known risks associated with ultrasound and there are no specific dangers or safety requirements. Your child may experience some mild discomfort from wearing the helmet. Bear in mind that you and your child are free to discontinue the data collection at any time.

Your child will be asked to sit in front of a computer screen in a sound-treated studio. The task of your child will be to read sentences from the computer screen. The session will be recorded for later acoustic and tongue contour analysis.

The whole procedure should not take longer than 60 minutes. It will consist in two parts. In the first part (not longer than 30 minutes), your child will use a helmet, which will hold the ultrasound transducer beneath the chin. The end of the transducer will be covered in medical gel. In the second part (not longer than 30 minutes), your child will not use the helmet; instead, the transducer will be hand-held beneath your child's chin by the investigator. In both parts of the experiment, your child will wear a microphone, in order to record their voice. In the second part, your child will be video recorded. The investigator will be with you during the entire session and will help you if necessary. Your child can take a convenience break between the two parts of the experiment.

All data will be anonymised and stored indefinitely at Queen Margaret University. Your child will not be mentioned by name in any report or presentation. However, if some of the data were played at a verbal presentation, there is the possibility that the voice of your child may be recognisable; also, your child may be recognisable if a videorecording was played at a verbal presentation.

It is entirely up to you to decide whether or not to take part in the project. If you do decide to participate, you will be given this information sheet to keep and be asked to sign a consent form. You and your child are free to withdraw from the study at any stage without giving a reason.

If you would like to consult an independent person, who knows about this project but is not involved in it, you are welcome to contact Dr. Alan Wrench (tel. 0131 4740000, email: [awrench@articulateinstruments.com](mailto:awrench@articulateinstruments.com)).

If you have read and understood this information sheet, any questions you had have been answered, and you would like your child to be a participant in the study, please now fill in the consent form.

Thank you for your participation.

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