

## Skills Underlying Maths

In partnership with researchers from Loughborough University and the University of Nottingham, your child's school are taking part in a study investigating the skills involved in learning and doing maths. We would like to invite your child to be part of this study. However, before you decide whether or not you want your child to take part, it is important that you understand why the study is being carried out and what it will involve. Please take time to read the following information and discuss it with other family members. If anything is unclear or if you would like more information, then please contact us before deciding whether or not to take part. This study has been reviewed and approved by the Loughborough University Ethical Advisory Committee.

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

When solving maths problems not only do we need to know how to add, subtract, multiply and divide, but we also need to be able to focus on the problem, store answers in our head and ignore unnecessary extra information. These general skills are important for learning in lots of areas but seem to be particularly important in maths. This study is looking at how general abilities such as memory, attention and flexible thinking are involved in learning and doing maths. We are interested in which general abilities are important for different types of maths (such as knowing arithmetic facts, using different procedures and understanding relationships, for example between addition and subtraction). This research is important for understanding how best to support all children in learning maths.

### **Why has my child been chosen?**

Your child's head teacher and school are helping with this project. They have circulated this information sheet to parents of children who may be able to take part in the study.

### **Do they have to take part?**

It is up to you and your family to decide whether or not to take part. If you do decide to take part then you do not need to do anything. If you DO NOT wish your child to take part then please return the attached form to your child's teacher as soon as possible. Anyone who initially agrees to take part is still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not affect your child's education in any way.

### **What will happen if my child takes part?**

A researcher would come to see your child at school for up to two hours, spread across several sessions. During this time they would be asked to complete some maths tasks and some games involving numbers, words and pictures. Some of the games are on computer and some are on paper. We would audio record some of the puzzles so that we can understand the strategies that children are using. These recordings will be stored securely at the University and only members of the research team will listen to them.

## SUM project Exp. 2: Parents information & consent

We will give your child regular breaks and do our best to make the computer games fun and interesting, and to make the whole experience enjoyable. We would not force anyone to carry on if they did not want to.

### **What happens to the results of the research study?**

The information we collect is kept strictly confidential. We would not give it to anyone else without written consent from you. Test results are identified by a code number only, and kept in a locked filing cabinet at the University. We plan to publish the findings of the study in a scientific journal, although this can take two to three years from the end of the study. We will also send the findings of the study to your child's school. We are unable to give individual feedback about children's performance.

### **Who is conducting this study?**

This study is part of a research project funded by the Economic and Social Research Council. The principal investigators are Dr Camilla Gilmore (Loughborough University) and Dr Lucy Cragg (University of Nottingham). If you have any more questions please contact us using the details given below.

### **What should I do next?**

If you are willing for your child to take part in this study you do not need to do anything. If you DO NOT wish your child to take part then please fill in the attached form and return it to your child's teacher as soon as possible.

