# Visually Impaired Students Needed for Research Study

### What is the study about?

If you are a visually impaired student who knows Nemeth Braille, you are invited to participate in a research study. A computer software program is being developed that will provide tools to assist visually impaired students in doing mathematics. This program will provide a Nemeth Braille editor and a real-time chat feature. It will translate Nemeth Braille to MathML, which can be inserted into a Microsoft Word document. The chat feature will allow you to communicate real-time with a math instructor, by translating Nemeth Braille to MathMI and back as you communicate. The goal of this study is to determine if this program will reduce the time required for a visually impaired student to create math documents representing typical math assignments encountered in high school or entry-level college mathematics courses.

#### When and where will this study occur?

We will schedule a test session with you at your convenience. You can participate from home, and do not need to travel to the researcher's location.

#### Why are you asking me?

You have been invited because you have been identified as a visually impaired university or high-school student who knows Nemeth Braille.

### What will I be doing if I agree to be in the study?

You will be given two sets of math problems typical of coursework found in a high school math course or an entry-level college math course, and asked to work through those problems. For the first set, you will use your current methods to work the problems and produce results in a form that could be submitted to a sighted instructor.

You will need to tell us what tools and methods you normally do your math homework, and you will need to measure the time it takes you to complete the first set of problems.

For the second set, you will be asked to use a computer program that allows you to enter and edit Nemeth Braille math expressions and produce a document with your work in a form that could be submitted to a sighted instructor. You will have the opportunity to utilize a real-time chat communication feature that will give you access to a math instructor who will be able to help you solve the math problems as needed.

You will need to spend some time practicing with the program to become comfortable in its use prior to the study session. We estimate that you will need a minimum of 1 hour of use to become comfortable with its use. You will spend 60-90 minutes during the actual research study session using this program.

We are NOT testing your math abilities! We are testing to determine if this program will make it easier for you to produce your math work and/or to get instructor help when you need it.

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PI: Cormott-Wells Version Date: \$/18/2013

### Is there any audio or video recording?

This research project will include audio and/or video recording of your actions using the computer program. Your computer screen is what will be video-recorded, and your voice will be audio-recorded during the test session. These audio and video recordings will be available to be heard only by the research team.

# Will I get paid for being in the study? Will it cost me anything?

There are no costs to you and there will be no payments made for participating in this study. You will, however, have an opportunity to obtain a copy of the final version of the software program for your use when it is released, at no charge to you.

You will have to install on your computer the computer program we provide, and also install the free personal version of the TeamViewer software program (<u>http://www.teamviewer.com/en/index.aspx</u>) that will allow the researcher to watch your actions while using the program. You will also need to have a working microphone on your computer, or be able to use a cellphone during the study session.

### I have some questions.

If you would like to know more about this study, please contact the researcher (contact information is at the end of this document).

## I'm really interested and would like to participate.

Great! Please contact the researcher (contact information is at the end of this document).

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