

Project Title: Coding and wonder in mathematics education

Principal Investigator: George Gadanidis, PhD

Letter of Information (online tutoring research): Grades 6-10 Student

1. Invitation to Participate

You are being invited to participate in this research on coding in mathematics education for grades 6-10 students.

2. Purpose of the Letter

This letter gives you information you need to decide if you want to participation in this research.

3. Purpose of this Study

The research looks at how coding in grades 6-10 math learning may offer mathematical play and surprise.

The research questions include:

1. How might the integration of coding and math change (a) what math is learned; (b) how it is taught; (c) how students learn differently; and (d) the classroom environment changes?
2. How your experience and understanding of mathematics may be different when coding is used to dynamically model math concepts and relationship?

4. Inclusion Criteria

Students in grades 6-10 mathematics are eligible to participate in this study.

5. Exclusion Criteria

Students not in Grades 6-10 mathematics.

6. Study Procedures

We will ask you what math topics math you need help with. We will then offer you tutoring and enrichment, in 50-minute sessions via Zoom, based on the topics you identified. In some cases, we will also use coding activities, to dynamically model and bring mathematics concepts and relationships to life.

We may take notes during Zoom sessions, and we may take pictures of your work, like on Zoom's whiteboard, or from pages of your notebook you may show using the Zoom camera (we will not photograph you). We may ask you some questions, like: What are you working on? What have you learned? How do you know this is correct? Do you have any questions? Did anything surprise you? What else would you like to know?

Your participation in the research is optional, and we only collect information from you if you and your parent have agreed.

Allowing us to take pictures of your work is optional. You may participate in the research without us taking any pictures of your work.

You may also participate in the Tutoring and Enrichment Program even if you don't want to be part of the research.

7. Possible Risks and Harms

We don't foresee or know of any risks or discomforts associated with participating in this study.

8. Possible Benefits

The possible benefits of participation are: (1) you may experience new ways of doing and learning mathematics; and (2) the study may help other teachers and future research.

9. Compensation

You will not be compensated for your participation in this research.

10. Voluntary Participation

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions, or withdraw from the study at any time with no effect on your education. If you withdraw from the study, you also have the right to request that information collected about you be deleted and not be used. To stop participating in the study please inform any member of the research team. You do not waive any legal rights by signing this consent form.

You may participate in the Tutoring and Enrichment Program even if you don't want to be part of the research.

11. Confidentiality

Notes and digital images of your work (on the Zoom whiteboard or by taking screenshots of work shared using the Zoom camera) we take in the online sessions will be anonymized. No images of you will be taken, and the Zoom sessions will not be video- or audio- recorded. Digital research data will be stored on password-protected devices. Written records will be kept in a locked cabinet in the principal investigator's or co-investigator's office.

12. Contacts for Further Information

If you require any further information regarding this research project or your participation in the study you may ask your parents to contact George Gadanidis at (519) 661-2111 x88682, email: ggadanid@uwo.ca.

If you have any questions about your rights as a research participant or the conduct of this study, your parents may contact the Office of Research Ethics; phone: (519) 661-3036 or toll- free: 1-844-720-9816, email: ethics@uwo.ca.

13. Publication

If the results of the study are published, your name will not be used.

This letter is yours to keep for future reference.

Assent Form (online tutoring research): Grades 6-10 Student

Project Title: Coding and wonder in mathematics education

Study Investigator Name: George Gadanidis, PhD

For Student Assent, please complete the Online Form at

https://uwo.eu.qualtrics.com/jfe/form/SV_6RO2kb7gBkYU3uC

COPY of QUALTRICS FORM



PROJECT TITLE: Coding and wonder in mathematics education

STUDY INVESTIGATOR NAME: George Gadanidis, PhD

SURVEY PURPOSE: Student Assent

A copy of the completed form will be emailed to the parent.

STUDENT ASSENT: I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

Yes

No

STUDENT ASSENT: I agree for my work products (such as on a Zoom whiteboard) to be copied.

Yes

No

STUDENT ASSENT: I agree for images of my work products to be used anonymously in academic publications.

Yes

No



Participant Name

Student signature

x **SIGN HERE**

[clear](#)

