Title of research study: oDREAMS: Promoting Computational Thinking through Game & Simulation Design

Investigator: Alex Repenning

Why is my child being invited to take part in a research study?
We are studying how game design and simulation design units are used in various courses and how they influence students’ attitudes towards computers and technology careers. The benefit of this study is that it addresses a critical national need to improve educational opportunities in the middle grades that increase student access to future careers in information technology. We expect this project to reveal important motivational factors for students that influence their academic and career decisions. Your child is being asked to be in this study because he or she is enrolled in a course using this unit.

What should I know about a research study?
- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

Who can I talk to?
If you have questions, concerns, or complaints, or think the research has hurt you, talk to the research team at: University of Colorado Boulder, Department of Computer Science, 430 UCB, Boulder, CO 80309. Dr. Repenning can also be reached at (303) 492-1349 or alexander.repenning@colorado.edu

This research has been reviewed and approved by an Institutional Review Board (“IRB”). You may talk to them at (303) 735-3702 or irbadmin@colorado.edu if:
- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research subject.
- You want to get information or provide input about this research.

Why is this research being done?
The overarching goal of oDREAMS is to study the development of computational thinking skills (CT), which is the reasoning we use to make sense of real world situations and model them with technology. The oDREAMS project will focus on how face-to-face, online and blended professional development models for teaching computing support classroom teaching and student learning in various schools.

How long will the research last?
The duration of the study will be a 2-8 week unit or block that your child will complete while he or she is enrolled in the class.

How many people will be studied?
We expect about 35 teachers and 2,100 students will be in this research study across multiple school sites and educational organizations during the first six months. Over four years we expect about 200 teachers and 15,000 students to participate in this study across the United States.
**What happens if I say yes, I want my child to be in this research?**

If you agree to have your child take part in this study, he or she will be asked to complete three surveys completed on the computer, as part of his or her class. A pre-unit motivation survey, a post-unit motivation survey, and a video-based survey after completing the unit. The research team will also review the project your child completes for the game design unit.

Participation will take place at the school as part of the course and will require the completion of a survey before and after the course, and collection and review of the final unit project.

**What happens if I do not want my child to be in this research?**

You can leave the research at any time and it will not be held against you. If your child does not participate, it will not have any effect on his or her grade. Students who do not have permission to participate in this research will complete alternative activities while classmates complete surveys.

**What happens if I say yes, but I change my mind later?**

You can leave the research at any time it will not be held against you.

**Will being in this study help me any way?**

We cannot promise any benefits to you or others from your taking part in this research. However, possible benefits include increased awareness and motivation to explore careers involving math, science, technology and game design.

**What happens to the information collected for the research?**

Efforts will be made to limit the use and disclosure of your personal information, including research study records, to people who have a need to review this information. We cannot promise complete secrecy. Organizations that may inspect and copy your information include the IRB, other representatives of this organization, and organizations involved with the evaluation of oDREAMS. Any student data shared with these other institutions will have codes in place of student or teachers names to protect student and teacher confidentiality.

**What else do I need to know?**

This research is being funded by the National Science Foundation. Publications resulting from this study (academic articles, reports) can be made available to participants upon request.

**Signature Block**

Your signature documents your permission for the named child to take part in this research.

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**Printed name of child**

**Signature of parent**

**Date**

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**Printed name of parent**

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**Name of School**

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**Name of Teacher**