



Zoombinis Implementation Study Teacher Agreement Letter and Consent Form

Welcome to the EdGE *Zoombinis* Implementation Study! We're so excited to have you on board. As a teacher, you probably know that we have to get all the logistics out of the way before we jump into the fun stuff. So, let's take care of that now and be on our way!

Please review the information and program requirements below and confirm your participation in the program (or send us your regrets) within 1 week of your initial conversation with someone from EdGE.

Background

The Educational Gaming Environments group (EdGE) at TERC is a research design and development team that is investigating the possibilities of game-based learning environments. In the '90s, TERC created the award-winning game *Logical Journey of the Zoombinis*. In 2015, TERC brought the game, now called just *Zoombinis*, back for new technologies and audiences. EdGE has received funding support from the National Science Foundation to research how this game might support young learners' computational thinking skills. New Knowledge Organization, Ltd. (NKO) is working with the EdGE team and may observe some classrooms participating in the research study. Learn more about EdGE at <http://edge.terc.edu>, NKO at <http://newknowledge.org>, and Zoombinis at <http://www.zoombinis.com/>.



Responsibilities

As a participant in this study, you will be tasked with encouraging students to play *Zoombinis* during and outside of class and using provided classroom materials to make explicit connections between students' experience playing the game and computational thinking content and skills. You and your students will get special access to a free research version of the game. Support materials and instructions will be provided and are not to be shared. To participate, you must agree to the following:

Classroom/Teaching Responsibilities

- **Administer pre-/post- assessments** during class time. Assessments will be provided by EdGE and should take students approximately 30-45 minutes each.
 - >50% of students in a class must complete assessments for that class to remain eligible in the study.
 - Pre-assessments should be administered as close to the beginning of the school year or term as possible.
- **Play at least** the 4 *Zoombinis* puzzles selected by EdGE as preparation for instruction.
- **Ask students to play at least** the 4 *Zoombinis* puzzles selected by EdGE, during and/or outside of class. Students should play each puzzle at least 30 minutes.
- **Devote at least 10 hours of class time** to teaching, discussing, and/or doing activities that support 4 key computational thinking (CT) skills: problem decomposition, pattern recognition, abstraction, and algorithm design.
 - **At least 5 hours** of this time should be spent implementing CT activities related to *Zoombinis* and/or the 4 key computational thinking (CT) skills. (i.e. Up to 5 hours of in-class *Zoombinis* gameplay, but no more, can be counted toward the 10 hours.)
- **Provide feedback and documentation** of classroom gameplay and *Zoombinis*/CT activities through online logs, surveys, and phone/online interviews.
 - There will be 3 interviews: an early, planning conversation, a midway check-in, and an after completion debrief. **These interviews will be audio or video recorded.**
- **Rate each of your students** in terms of their computational thinking skills.

Logistical Responsibilities

- Confirm with school administration that you and your students are permitted to participate in this research study.
- Distribute Parent Notifications Forms for all students.
- Notify EdGE if any parents want to opt their child out of the study.

Technology Responsibilities

- Install (or arrange installation of) *Zoombinis* on school desktop computers or tablets OR ensure that the web-based version of the game

