



Dear Student,

Vanderbilt University is doing a research project in your school about learning science with computer programs. Our computer program helps you learn by teaching a computer character named “Betty.” Betty is like a student, and you will be her teacher! You will teach Betty science topics like river ecosystems and pollution. Betty will answer your questions and ask you for help. If you do a good job teaching, Betty will answer questions correctly and pass her quizzes.

We think teaching a computer character will help you learn about ecosystems and pollution. We want to find out how to make the computer characters better. We have worked in your school for many years. We will compare what we learn this year to what we learned before. We need your help so we can do our research!

You probably have many questions. This letter will explain the project.

What will happen during the project?

You will learn how to make a concept map and teach the computer. Then you will teach the computer character two different topics. The first topic is on river ecosystems. The second one is on pollution in rivers. For both topics you will make a concept map on the computer. Everything will happen in your science class. All of your work will be related to your normal lessons. Your teacher will be in charge. Some researchers from Vanderbilt will also be there to help you and your teacher. Each unit of this project will take a week, and we will finish the two units in the Fall semester. You will use computers provided by your school and Vanderbilt University. For our research, we will use web cameras connected to your computer to videotape your work on the system.

You will take tests on the computer to find what you know and have learned. There will be two sets of test. For each unit, one test will happen at the start of the unit. A second test will happen at the end of the unit. We will also give you an additional test at the end of the project to get an idea of what you think about our computer characters. It will take you about 30 minutes to answer the test questions on each of the tests.

At the end of the project, some students will be asked to answer questions in an interview. The interview will take about 10 minutes. The interview will be videotaped.

Will your scores and information be private?

After you take the tests, we will take your name off the tests. All the tests will be labeled with a special code that does not show your name. The reason we do this is to keep your personal information safe. When we write reports about our research project, we will never use your name. We will keep your work private, but we will share them if the law tells us we have to.



Our video interviews and video recordings while you work are for our research only. We will not share them with anyone but our team members and your teachers.

We also would like permission to view and use your test scores from the TCAP test. These scores will be given to us by school officials. This information will help us evaluate our project. We will not share your scores with anyone else. Your teachers may also share some of your school work with us. Again, this is for research only. Nothing we do will affect your classroom grade.

Do you have to participate?

You do not have to be part of the research project unless you want to. We do not think there are any risks for being part of it. You can leave the research project at any time. All you have to do is tell your teacher that you don't want to continue. Your parent or guardian can also call Dr. Gautam Biswas at this phone number: (615) 343-7472. Dr. Biswas can also answer any other questions you have about the project.

If you do not want to be part of the research project, your teacher will find a different way for you to learn the information. We think you will learn a lot by being part of the project and teaching the computer character. We also hope it will be fun!

If you have any questions about your rights as a participant in the project, please have your parent or guardian call the Vanderbilt University Institutional Review Board at (615) 322-2918.

We hope our research project will help us find out how computers can help students learn better. Thanks for your help!

Sincerely,



Gautam Biswas, Ph.D.
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Senior Research Scientist, Institute for Software Integrated Systems
Vanderbilt University

STATEMENT BY STUDENT:

I have read this letter and it has been explained to me. All my questions have been answered. I freely choose to participate. I understand that I may choose not to participate in the research at any time.

Your Name



Date

