



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 about science topics like climate change. Betty will answer your questions and ask you for help. If you do a good job teaching, Betty will be able to answer questions correctly and pass her quizzes.

We think teaching a computer character will help you learn about why climate change occurs, and what its effects can be. We want to find out how to make our computer characters and computer program 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 use the computer program. Then you will teach the computer character two different topics. The first topic is climate change. The second one is ecosystems. For both topics you will make a concept map on the computer. All of this will happen in your science class, and all of your work will be related to your classroom lessons. Your teacher will be in charge. Some researchers from Vanderbilt will also be there to help you and your teacher. The first unit of this project will take about two weeks, and will take place in the Fall semester. You will work on the second unit in the Spring semester. You will use computers provided by your school and Vanderbilt University for the first study. In the second study, you will start with a homework problem given by your teacher. After you submit your homework, you will get to work with a partner on the computer system in class. Together, you and your partner will build a concept map about ecosystems. For this part, we will use web cameras connected to your computer to videotape some of your work on the system.

For each unit, you will take two tests to find out what you have learned. One test will happen at the start of the unit. A second test will be given at the end of the unit. We will also give you a small test at the end of the project to find out what you think about our computer characters. It will take you about 30 minutes to answer the questions on each of the tests.

At the end of the project, some students will be asked to answer a few questions about the system 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 information about you 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 it if the law tells us we have to.

The video interviews and video recordings of your 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 our program will harm you in any way. You can also 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 your teacher or 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 science topics. 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.
Professor, Computer Science and Engineering
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 still choose not to participate in the research at any time.

Your Name

Date

