
An Evaluation of six K-12 Mathematics Software Products Distributed Across the State of Utah

Introduction

Your child is invited to participate in a research study conducted by Michael Snyder, a Project Director in the College of Education and Human Services at Utah State University. The purpose of this research is to determine the effects of mathematics software on students' SAGE scores and on their attitudes toward mathematics. We will also be studying teachers' usage of the supplemental math software, their perceptions of professional development provided by the software vendors, barriers to use they may experience, and solutions teachers suggest for surmounting these barriers.

This form includes detailed information on the research to help you decide whether to allow your child to participate in this project. Please read it carefully and ask any questions you have before agreeing to participate.

Procedures

Your child's participation will involve taking two 15-minute surveys, one in September 2016 and another April 2017. Thus, your child's total time commitment to this study will be 30 minutes. The surveys will not be anonymous because we would like to compare your child's answers with their data showing how much they used the math software. Identifying information will, however, be managed with extreme care and destroyed as soon as possible. Further, no identifying information will ever be published as a result of this study. Both surveys will be taken in a school computer lab overseen by your child's teacher. Your child will take the survey without interference from anyone, unless they request the assistance of the teacher. All other activities related to this study will happen during the normal course of the year. For example, using math software requested by your child's school as their teacher instructs and taking the end of year SAGE exam. If you agree to allow your child to participate, the researchers will also collect SAGE scores at the end of the year as well as demographic data regarding all students participating in the grant program (e.g., race, sex, etc.). We anticipate that 200 people will participate in this research study at your school, and that a total of 133,202 people will participate among all Utah schools.

Risks

This is a minimal risk research study. That means that the risks of participating are no more likely or serious than those encountered in everyday activities. The foreseeable risks or discomforts include loss of confidentiality. In order to minimize those risks and discomforts, the researchers will provide participating school districts and vendors with a secure server on which to upload data. This data is then analyzed and all identifying information is then destroyed.

Benefits

Participation in this study may directly benefit your child by increasing their mathematical fluency and problem solving skills, improving their experience within their mathematics course(s), and increase their awareness of "real world" applications of math by having meaningful problem solving experiences. More broadly, this study will help the researchers learn more about mathematics software use in public and charter school classrooms, and may help define best practices for future implementations of such software.

Confidentiality

The researchers will make every effort to ensure that the information your child provides as part of this study remains confidential. Because we would like to compare your child's answers with their data showing how much they used the math software, the surveys will not be anonymous. However, every precaution will be taken to protect your child's data. Only one researcher will have access to the data while it is still identifiable. This individual will de-identify it as soon as possible. Further, your child's identity will not be revealed in any publications, presentations, or reports resulting from this research study.

We will collect your child's information through two Qualtrics surveys and a secure server accessed only by our research team. This Data will be securely stored in a restricted-access folder on Box.com, an encrypted, cloud-based storage system, or in a locked drawer in a restricted-access office. Identifying data will be destroyed as soon as possible (no later than July 2017).

It is unlikely, but possible, that Utah State University, the STEM Action Center, or state or federal officials may require us to share the information your child give us from the study to ensure that the research was conducted safely and appropriately. We will only share your child's information if law or policy requires us to do so.

Voluntary Participation & Withdrawal

Your child's participation in this research is completely voluntary. If you agree to your child's participation now and change your mind later, you may withdraw at any time by contacting the Principal Investigator of this project, Michael Snyder, who may be reached at Mike.Snyder@usu.edu, or 435.797.5519. If you choose to withdraw after we have already collected information about your child, we will destroy all data pertaining to your child's participation in the project. If you decide not to participate, your child's access to the mathematics software will not be affected in any way.

The researchers may choose to terminate your child's participation in this research study if your school does not use the software licenses granted to them by the STEM Action Center within the first 4 months of the 2016/2017 school year.

Findings

All finding associated with this project will be made publicly available at the STEM Action Center website, found at the following link: <http://stem.utah.gov/>.

IRB Review

The Institutional Review Board (IRB) for the protection of human research participants at Utah State University has reviewed and approved this study. If you have questions about the research study itself, please contact the Principal Investigator at 435.797.5519 or Mike.Snyder@usu.edu. If you have questions about your child's rights or would simply like to speak with someone other than the research team about questions or concerns, please contact the IRB Director at (435) 797-0567 or irb@usu.edu.

Please affix an electronic signature

435.797.5519; Mike.Snyder@usu.edu



Michael A Snyder
Principal Investigator



Informed Consent

By visiting the web link below and electronically opting out, you opt your child out of this study. **If you do nothing, you consent to your child's participation in this study.** You indicate that you understand the risks and benefits of participation, and that you know what your child will be asked to do. You also agree that you have asked any questions you might have, and are clear on how to stop your child's participation in the study if you choose to do so. Please be sure to retain a copy of this form for your records. If you need this document translated into a language different from English, please contact the Principal Investigator, Michael Snyder at Mike.Snyder@usu.edu, or 435.797.5519.

Online Consent

If you prefer, you may opt your child out of participation in this study by completing the short survey found at the following link: <http://tinyurl.com/jov3nwf>

Or by following the QR code to the right. The survey will ask your name, the name of your child, and to click the "decline to participate" button.

