**South Dakota State University**

**Parental Information and Permission Request**

**Study Title: Study of Outreach Effectiveness in Physical Science – SOEPS**

**Principal Investigators: Larry Browning, Matthew Miller, Priscilla Heliso, Megan Radtke**

We are from South Dakota State University (SDSU) in the Departments of Chemistry/Biochemistry and Physics. Larry Browning and Matt Miller are faculty in those departments and Priscilla Heliso and Megan Radtke are undergraduate students in the Department of Chemistry/Biochemistry. We have organized, with the help of the principal at your school, an educational event for students and teachers at your school involving chemistry and physics demonstrations and hands-on activities. These demonstrations and activities will be fun, engaging opportunities for students to learn about science. While we are presenting these activities, students and teachers will be asked questions about the demonstrations and activities. Our purpose for asking these questions is to find out if we as teachers (the four of us from SDSU) are doing an effective job of presenting the demonstrations and activities in such a way that students learn from the experience.

These questions will be asked in two different ways, both anonymously. The first will be questions asked during a large group educational assembly. The assembly will last from 1 to 1 ½ hours during which we will ask questions and gather student and teacher answers using a system called plickers. Students and teachers will hold up cards with patterns like these, and depending on how they hold them they can choose from answers A, B, C, or D.



1. B) C) D)

We will then scan the patterns from the front with cellular phones. No student or teacher names will be associated with the answers. We are not taking any pictures. The app only records the pattern and its orientation and no other information so we will have no way to know which students answered correctly and which did not. What we will know is how many of the students in the audience learned about the science concept, helping us verify our methods for teaching and presenting.

The second set of questions will be in the form of a survey asking students and teachers what their favorite demonstration/activity was, how they could explain that demonstration/activity, and if they had any other questions about the demonstration/activity. The time required to complete this short survey will be about 15 minutes. Again, no names will be associated with surveys and therefore we will not know what individual students thought about the program, just overall statements from the entire school.

We are asking for your permission to allow us to collect this information from your child. Again, we will not know how your child answered the questions. We will only know how the entire school answered the questions. If you are willing to allow your child to participate, we do not need you to complete any information. If you are not willing to allow your child to participate, instruct your child to place part of their hand over the darkened areas of the plicker card. This will prevent the cellular phone from collecting your child’s data. Also, inform your child not to complete the survey after the event is over.

Data will be saved on a password protected computer or encrypted media device stored in a locked box in a locked office. While no guarantees can be made regarding interception of data, all reasonable means will be taken to secure the data. No identifying information will be collected during the study. Major themes in the data and deidentified direct quotes from participants may be included in final reports. All responses will be collected anonymously and stored in the data file. Only the research team will have access to the data file. When the study is completed and the data have been analyzed, the list will be destroyed (after 3 years).

For questions, concerns, or complaints about the study you may contact the Larry Browning at 605-688-4548 or [Larry.Browning@sdstate.edu](mailto:Larry.Browning@sdstate.edu). For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact SDSU’s Research Integrity and Compliance Officer at 605-688-5051 or sdsu.irb@sdstate.edu.