MEMORANDUM OF UNDERSTANDING (MOU)

Between

SRI International
Center for Technology in Learning

and

San Leandro Unified School District

Research Brief prepared for: San Leandro Unified School District
Submission Date: March 15, 2017

Title of Research Project: Google Expeditions Research Project
Organization Conducting Research:
SRI International
Center for Technology in Learning
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Anticipated timeline for participation in this research project:
Spring Semester, 2017

Purpose and Goals of Project:
The Google Expeditions Research Project is designed to promote equal access to quality education. The study is a pilot of a program designed to provide technology and supports to middle school science teachers and students. The project will leverage the Google Expeditions and Google Cardboard tools in science classrooms at Bancroft Middle School to explore the uses of virtual reality tools in classroom settings.

The overall study design is intended to provide insights into implementation through phases of piloting the lessons, intended to understand the possible impacts of using these virtual reality tools in a classroom setting.
The goals of SRI's Google Expeditions Research Project are summarized in 3 overarching research questions:

- What are the expected student outcomes (i.e., increased engagement, interest, learning) of use of Google Expeditions in the classroom?
- What are the expected teacher outcomes (i.e., increased comfort with technology and comfort using technology in student-centered learning activities) of use of Google Expeditions in the classroom?
- Do students experiencing an identical lesson, learn more or differently when using VR to view media versus printed photos of the same media?

Data Collection:
The project pilot is centered on teachers at Bancroft Middle School piloting one of two science lessons for 8th grade science which fit into the 8th grade California Science Content standards. The lessons were designed in conjunction with a team of science teacher experts – one on Ocean Acidification and one on the Spirit Mars Landing. Teachers will be given a choice of the lesson they wish to present, to ensure that the lesson fits best within their current scope and sequence. The study design asks teachers to present at least two sections of their selected lesson to 2 different groups (periods) of students – once using Google Expeditions, and once using more traditional visual representations. This will help us understand the impact (if any) of the virtual reality technology on the lesson. (Each teacher is thus acting as their own control and treatment for research purposes.) SRI International will ensure all procedures are in accordance with FERPA (Family Education Rights and Privacy Act).

We seek to send no more than two researchers into the class during the lesson pilot sessions. We are also, thus, seeking to video record the sessions in order to analyze the sessions. These videos will not be reviewed outside of the research team, and will be stored on local, secure servers at our SRI International offices in Menlo Park, California. These videos are not to be used for promotional purposes, nor will Google or other entities have access to the videos. Parents will be asked to sign an express consent, and students whose parents opt them out of the video recording and/or participation in the research will be given a compendium task and kept out of the video recording and/or class session during the research pilot(s).

Students in the classrooms will be asked to complete an anonymous quick survey at the end of the lesson to collect their impressions of the virtual reality tool or the presentation method of the visuals in the "control" classroom, but no personal identifiable information on individual students will be collected.

This project has been reviewed by the SRI Institutional Review Board and follows best practices for informed consent (for adults) and assent (for minors), as well as data security and

confidentiality. Any paper materials will be stored in locked cabinets at SRI's headquarters in Menlo Park, California. Electronic materials related to the project will be stored using secure password protected procedures, with restricted accessibility. A list our teacher participants will be kept in locked, confidential files on a secure server. This personally identifiable information will be removed leaving data anonymized to the extent possible. All SRI researchers collecting data in the field will have password-protected laptops with additional encryption to further prevent inadvertent data disclosure.

Research activities include:
Classroom Pilot: A team of up to two SRI researchers will visit the participating school 1-2 times over a 1-2 day period at a date agreed upon by the teacher and research team. Parents will be informed of all activities involving students and be asked to sign an active parental consent. The lessons will be presented using either Google Expeditions and Google Cardboard, or using other visual representation tools. The session(s) will be video recorded for later analysis.

Confidentiality:
All data will be kept in secured files your name will not be used by anyone other than authorized personnel. Any report of the data collected will be in summary form, not identifying individuals. Findings from the study may be disseminated through academic research reports, papers, or presentations, which will not name individuals or schools.

Signatures:

San Leandro Unified School District	Title	Date
SRI International	THERESA E. RUNKLE DIV. MANAGER OF CONTRACTS Title	4/6/17 Date