IMPACT OF SCIENTIST-CLASSROOM PARTNERSHIPS WITH MIDDLE SCHOOL GIRLS
Annie Tête | Louise S. McGehee School | New Orleans, Louisiana

BACKGROUND AND RESEARCH QUESTIONS
Exposure to positive experiences in science is linked to improved attitudes toward careers in science and engineering. I developed a series of Skype conversations with female science professionals linked to the unit of study.

Primary Research Question
• Does sustained interaction with female scientists using synchronous internet video enhanced by a virtual field trip improve the perceptions of middle school girls about scientists?

Secondary Research Questions
• How do student attitudes toward careers in science and engineering change as a result of interacting with female science professionals?
• Do Skype conversations with scientists and virtual field trips improve student content knowledge?
• What is the relationship between the use of Skype to facilitate classroom-scientist partnerships and teacher preparation, planning time, and attitudes?

TREATMENT AND METHODOLOGY
Treatment: 7th grade students at an independent, all-girls school (N=33)
• Students had short Skype conversations with a female science professional at the beginning, middle, and end of a unit on human body systems along with a related virtual field trip.
• Alternate groups of students received treatment in order to compare the same content.

Methodology: Student perceptions and attitudes were evaluated using the Draw-A-Scientist Test (DAST), a science attitude survey, and interviews.
• Content knowledge was assessed using pre and post content tests and journal prompts.
• Teacher attitudes were evaluated through journaling and co-teacher observation.

DATA AND ANALYSIS
Following scientist-classroom partnerships using Skype:
• Student perceptions of scientists improved.
• Student attitudes toward careers in science improved.
• Content knowledge did not increase when compared with non-treatment group.
• Teacher attitude was positive and minimal preparation time was required to coordinate the partnership.

CONCLUSION AND VALUE
Scientist-classroom partnerships provide context and relevance for classroom learning.
• Allow students to hear about the application of scientific knowledge in the real world.
• Create powerful interpersonal connections.
Successful partnerships are student centered.
• Begin small using personal contacts.
• Provide the teacher with professional development.
• Require minimal planning and implementation time.

Example of one student’s depictions of a scientist before and after the scientist-classroom partnership (above). Student quotes during interviews (below). Students interact with an equine vet Skyping from her truck between calls (right).

-I like getting answers to questions right away.
-Talking helps me get it more.