

Asking Good Research Questions

November 14, 2017



****To ask your questions: click 'Raise Hand' or use the chat window****

Student Research Symposia
Open Office Hours/Webinar

2018 SRS Locations

Region	Location
Midwest	Wayne State University, Detroit, MI
Northeast/Mid-Atlantic	State University of New York, Fredonia, NY
Northwest	Montana State University, Bozeman, MT
Pacific	NASA Ames, Mountain View, CA
Southeast	University of North Carolina, Charlotte, NC
Southwest	Metropolitan State University, Denver, CO

Facilitating Student Research

Webinars and Open Office Hours (7- 8pm EST)

Each webinar will begin with a short presentation on the topic with student examples from past SRS or IVSS. The remaining time will be open office hours for questions on the topic, or other SRS questions. Pre-recorded webinars on each topic are available on the website.

Date	Topic
Tuesday, October 24	Conducting Field Investigations
Monday, November 13	Developing Good Research Questions
Wednesday, December 13	Analyzing Data
Thursday, January 24	Writing Conclusions
Tuesday, February 13	Making a Science Poster
Monday, March 5	Giving a Poster Presentation

Three Basic Types of Questions

▶ Descriptive Questions

- ▶ Focus on measurable or observable variables that can be represented spatially in maps or written descriptions, estimations, averages, medians, or ranges.

▶ Comparative Questions

- ▶ Focuses on one measurable (dependent) variable in at least two different (independent variable) locations, times, organisms, or populations

▶ Correlative Questions

- ▶ Focuses on two variables to be measured and tested for a relationship.

Descriptive Questions

- ▶ How many _____ are in an area?
- ▶ How frequently does _____ happen?
- ▶ What is the temperature, height, mass, of _____ ?
- ▶ When does _____ happen during the year?
- ▶ Where does _____ happen during the year?

Comparative Questions

- ▶ Is there a difference between _____ between group A and Group B?
- ▶ Is there a difference between _____ between different locations?
- ▶ Is there a difference between _____ between two different times?

Correlative Questions

- ▶ What is the relationship between variable # and variable #2?
- ▶ Does _____ go up when _____ goes down?
- ▶ How does _____ change as _____ changes?

The image features several abstract geometric shapes in various shades of blue. On the left, there is a small, solid light blue triangle pointing downwards. On the right, there is a large, complex composition of overlapping, semi-transparent triangles and trapezoids in shades of light blue, medium blue, and dark blue. The text "Helping students decide ..." is centered horizontally in a light blue, sans-serif font, positioned between the two main graphic elements.

Helping students decide ...

Most Important

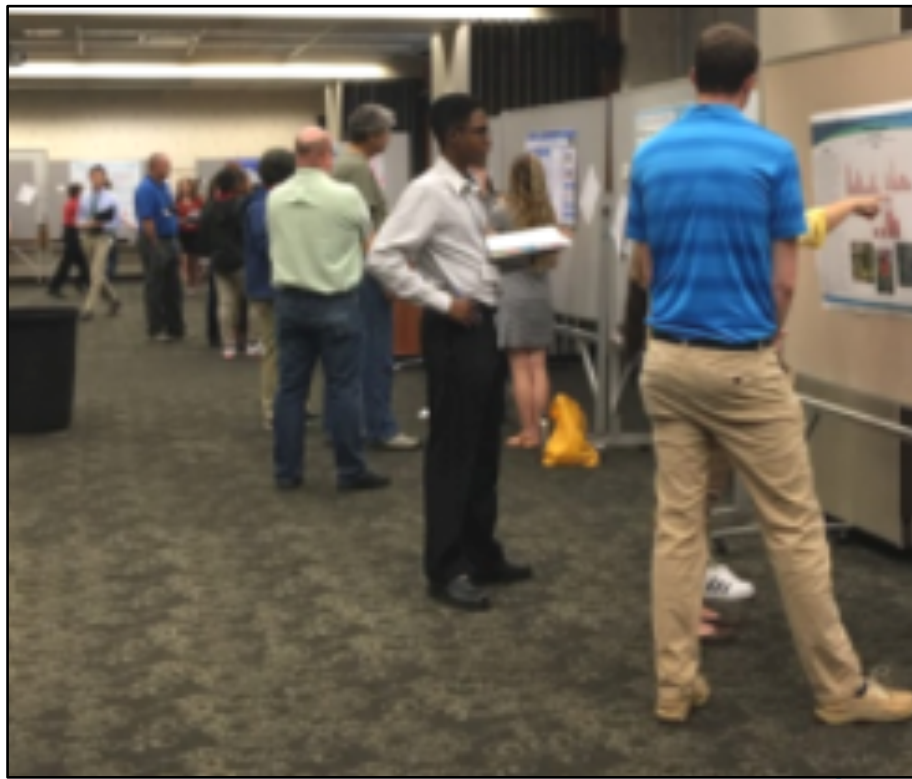
- ▶ Driven by the student
- ▶ Think “Small” to get at “Big”
- ▶ It is OK for questions to morph



Let's talk



RESOURCES FOR STUDENTS AND TEACHERS



NEW this year! Teacher Hotline!

Have a question about the research process or the 2018 SRS?

Fill out [a short google form](#) and you will be connected with an experienced GLOBE teacher who can discuss your question over a brief phone call.

Google form is available from the SRS website:

<https://www.globe.gov/web/united-states-of-america/home/student-research-symposia>

If you are an experienced teacher who would like to join the SRS Hotline team, please contact Haley Wicklein (hwicklein@gmail.com).

SRS Teacher Listserve

If you aren't already on the list,
SIGN UP!

- Stay updated on SRS information and deadlines.
- Find out about webinars and events.
- Direct links to new and exciting teaching resources for student research.

*Sign up link
available on
the SRS
webpage.*



THE GLOBE PROGRAM

A Worldwide Science and Education Program

Hello GLOBE Teachers!

The Pacific and Northwest Symposia begin this week! See below for info about all [GLOBE Student Research Symposia](#) (new items in red).

If you are attending the PACIFIC or NORTHWEST Symposia:

- Keep an eye out for the logistics email early this week.
- Please remind parents to return the evaluation opt-out form, if they

U.S. Regional SRS Webpage:

<https://www.globe.gov/web/united-states-of-america/home/student-research-symposia>

Open for Q&A

Please use the “raise hand” or chat window to ask your questions.