Sigma Xi
Student Research Showcase
a competition for virtual research presentations

GUIDE FOR JUDGES

Contents

Presentation Site Overview

1 - **Short Title**   2 – **Presenter Information**   3 – **Personal Video**

4 – **Discussion Widget**   5 – **Abstract**   6 – **Slide Presentation**

Visit http://sigmaxishowcase.tumblr.com/ for a sample Student Showcase presentation site

Elements of a Showcase Presentation [1]

1. Short Title

A short title of the research project should appear near the top of the presentation page. This is not necessarily the formal title of the research project, which should appear in the abstract section (see below).

The short title should give a general idea about the topic and help confirm that the visitor is on the correct site. A formal title such as: "Fluctuating Asymmetry as an Indicator of Habitat Quality and Foraging Ability in the Tiger Salamander, *Ambystoma tigrinum*" could be shortened to simply: "Tiger Salamander: Foraging and Habitat."

The short title will appear on the Sigma Xi Student Showcase home page and will be used to identify student presentations to the judges.

2. Presenter Information

Presenters should be identified by name, current education status (examples: high school senior, graduate student, freshman) and institution name. Other information (field of study for example) may be included but is not required.

3. Personal Video

- [ ] **Intended Audience**: judges as well as general visitors to the presentation site.
- [ ] **Length**: 2-3 minutes.
- [ ] **Goals:** serve as a means for presenters to introduce themselves and their project to judges and guests visiting the presentation site.
- [ ] The video is also an opportunity to share enthusiasm for the research project.
- [ ] The video should Include a statement of how the research fits into the big picture; described in a way that non-scientists would find compelling.

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[1] Aside from the "Short Title," the elements of a Student Showcase Presentation may appear in any order on the presentation site

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4. Discussion Widget

- ☐ **Intended Audience**: judges with a technical background that matches the student's research project. Some casual visitors may also comment.
- ☐ **Goal**: to afford students and judges an opportunity to dialogue about the student's research similar to how they might at a face to face event.
- ☐ **Discussion behavior**: *Discussion widgets typically allow presenters to moderate the discussion and flag/remove any inappropriate comments. As these forums are public, Sigma Xi cannot be responsible for the content of posts. Please do alert Sigma Xi if any student or judge does post inappropriate comments. This is not acceptable and we will follow up as necessary.*
    - ✓ **Some of the student participants are minors. Sigma Xi therefore requests that judges to not communicate with presenting students outside of the public discussion widgets connected with the student's presentation site.**
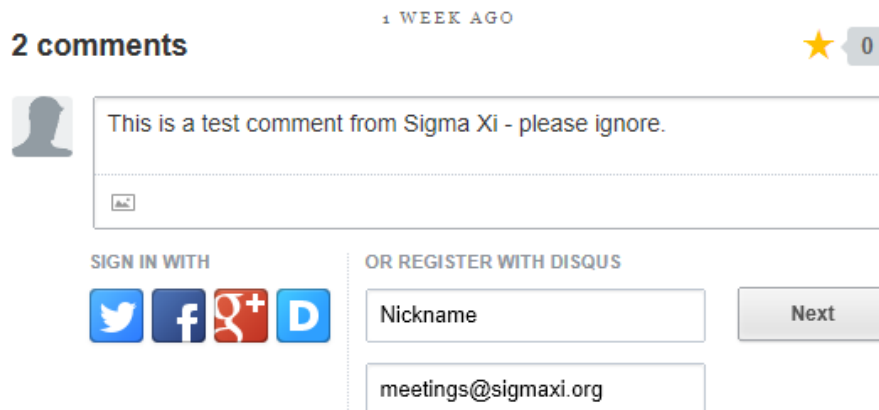
How to Engage in Discussion with students

Most presentation sites will have DISQUS installed to allow you to interact with the student. Locate the link on the site that most likely appears as   0 COMMENTS AND 0 REACTIONS

You will then be led to a comment box that most likely appears as follows

Add your comment, create a nickname and enter any email address (judge@sigmaxi.org is fine for this purpose). You will not have to formally register with DISQUS in order to submit your comment.

No Login Required

If the discussion widget insists that you log in before posting, please contact meetings@sigmaxi.org so we can instruct the student on correcting their privacy settings.

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5. Abstract

☐ **Intended Audience**: visitors with a general science background but who do not have specific technical knowledge of the scientific principles behind the student's research.

☐ **Suggested length**: 200 words maximum.

Abstracts should contain the following information

☐ Formal title of the research project (in bold font)
☐ Statement of hypothesis, research question or research goals
☐ Explanation of how the research fits into the "Big Picture"[2]
☐ General description of research methods and anticipated results
☐ Findings or conclusions
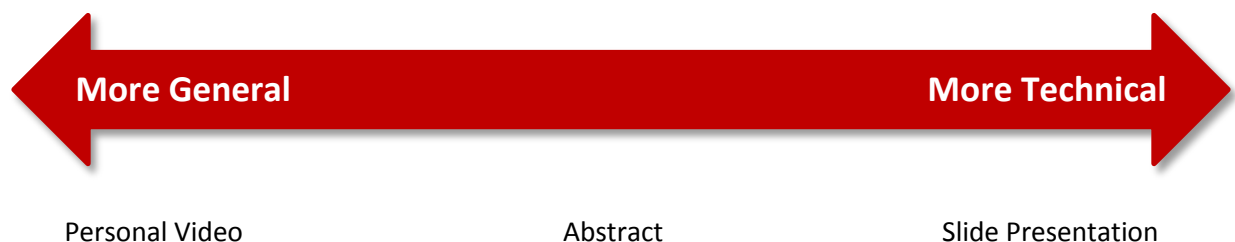
6. Slide Presentation

☐ **Intended Audience**: judges with a technical background that matches the student's research project.

☐ **Limit**: 25 content slides + 1 title slide + 1 acknowledgement slide (27 slides total).

Slide Presentation should contain the following:

☐ Formal title of the research project on slide 1 (may also include presenter information)
☐ Statement of hypothesis, research question or research goals
☐ Technical description of research methods and how they serve to test the hypothesis or answer the research question
☐ Data and results
☐ Findings or conclusions

**Note on Level of Technical Detail

Keep in mind that elements of the presentation serve different goals and have different levels of technical detail. Consider the following when evaluating the student's presentation sites:

More General ⟵⟶ **More Technical**

Personal Video   Abstract   Slide Presentation

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[2] A statement of the importance of a research project, the overall perspective or objective, not the fine detail.

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Evaluation Process

- [ ] Judges will be assigned a selection of student presentations that matches the judge's general field of research.
- [ ] Judges will receive an email with hyperlinks to the selected presentations as well as a link to an evaluation form. ***See next page for a list of evaluation criteria.***
- [ ] During the evaluation/discussion period (Monday-Friday of the Showcase - see timeline above), judges visit their selected presentations to review/rate/comment.
- [ ] Judges will give a comparative rank for the following elements of the presentations assigned:
    - o Personal Video
    - o Abstract
    - o Technical Slide Presentation
    - o Responses to Questions

See next page for a list of evaluation criteria.

- [ ] Judges will provide brief additional feedback
- [ ] Discussion period ends on Friday of the Showcase. Evaluation forms should be completed by Noon (Eastern US Time) on Saturday of the Showcase.

Evaluation Criteria

Using an online form, judges will provide evaluations for each presentation in response to the following criteria.

Scientific Thought and Method

The hypothesis or research question is clearly stated.

The project is the result of careful planning.

The method of investigation is clearly explained.

The method of investigation is appropriate to the research problem.

Sufficient data have been collected to justify conclusions made.

The presenter's work is clearly reflected in the project.

Communication

The presenter communicates enthusiasm for the project in the personal video.

The significance of the project ("big picture") is clear.

Text, charts and diagrams aid in the understanding of the project.

The presenter communicates effectively in responses to questions.

In addition, judges will respond to an open ended prompt:

Comment below on what impressed you most about the presentation and what change could most improve the presentation.

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Contact Information – How to volunteer

Volunteering

Complete the form at **https://www.sigmaxi.org/meetings-events/volunteer** and click on 2016 Student Showcase, and indicate the fields in which you can serve as a judge.

Judging Sections include:

1. Agriculture, Soil, and Natural Resources
2. Anthropology
3. Cell Biology and Biochemistry
4. Chemistry
5. Ecology and Evolutionary Biology
6. Engineering
7. Environmental Sciences
8. Geo-Sciences
9. Human Behavioral and Social Sciences
10. Math and Computer Science
11. Microbiology and Molecular Biology
12. Physics and Astronomy
13. Physiology and Immunology

Qualifications for Judges

Sigma Xi membership is not required but is preferred. Judges should be a career researcher with an advanced degree.

Contact Information

Janelle G. Simmons, Ed.D.
Manager of Programs
Email: meetings@sigmaxi.org
Phone: 919-549-4691 Ext. 206