



PROJECT TITLE: Grad Students' Shark Tank

PROJECT TAGLINE/CAPTION (160 characters): Learning the art of paper writing and presentation crafting through collective feedback from one's peers and from experts

IMAGE:



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Name of Group/Organization:

PROJECT DETAILS

Provide a description of the project.

Formatting a presentation or structuring a scientific article is, to a large extent, an art. As such it is best learnt as an apprenticeship: one has to watch others, then to try and finally to receive feedback on one's work by more experienced practitioners of the art.

A more modern model for the present project, is the so-called "shark tank": a student gives a presentation to, or shares the draft of a paper with a group of students and post-docs, supervised by a faculty member. The audience provides feedback on the formal



aspects such as the quality and visibility of figures, the logical structure of the presentation or the paper, etc.

The audience points out weaknesses and faults, and allows the presenter to correct them and to improve their skills.

We have experimented with this activity during last year's REU program, by organizing a bi-weekly "shark tank" meetings in which students gave 5 minutes powerpoint presentations, which were then discussed collectively. The improvement in the quality of the slides—as well as of the presentation overall—was tangible.

The present "Shark Tank" will take place on a biweekly basis, for 10 weeks; one week the meeting will be devoted to presentations, and the following one to papers, and so on alternating presentations and papers, with the following format:

- **Presentations:** 3 presenters will be selected, and will give a 10-minutes talk, followed by 10 minutes of discussion and feedback from the audience
- **Papers:** 1 paper will be selected. The student (or students) author will give a 10-minutes presentation to introduce the topic discussed in the article, and will then explain in 10 more minutes the plan of the paper, and show the figures that should illustrate it. This will leave up to 40 minutes for the discussion and feedbacks

In each case, the title of the presentations or paper will not be communicated in advance to the participants to avoid participation limited just to "experts" of the respective fields

Timeline: If the project will take place at a specific time and place, please give details. Is it a one-time event or a series?

As described above, the project is not a one-time event

Audience: Who is your target audience? (e.g. program-specific, interdisciplinary, or university-wide? Will undergraduates, faculty, staff, or postdocs be involved? Any off campus participants?)

The audience is interdisciplinary. It will concern students from Science and Engineering. Participants will include faculty members—at least the proposer—and especially post-docs. Undergraduates will be welcome.

How many people do you anticipate will participate?

Hard to tell. We target about 10 for each session.



Marketing Plan: How do you plan to publicize the project?

Through the GSAs and the faculty advisors in the Smalley-Curl Institute.

ADVANCEMENT

What are the goals of the project?

To help graduate students learn how to be as effective as possible in a short oral presentation, or a poster, as well as in composing scientific articles.

Note that this kind of training is not only beneficial for the presenters, but also for all the participants.

Briefly explain the need for the project and how it will promote excellence in scholarship, training, and/or development?

Presenting at Conferences, as well as writing scientific papers, are integral parts of a scientist's job. As such, they have to be learnt by young researchers, and no specific training is provided, unless the faculty advisor dedicates time to the task. The project will provide this training in a systematic way, and will also relieve faculty from the task.

If this is an existing project/event or a similar one exists, describe how the project/event is being expanded or enhanced.

It is not the extension of an existing project, but it profits from experience gained out of the REU program.

If your proposal is for a pilot project, suggest how it might develop over a three-year period.



The project will rely on the support of the Smalley-Curl Institute. It can be extended to other areas by relying on other Rice Institutes, and possibly to the Humanities if a similar need exists.

Describe how you will measure the success and impact of this project. Please, provide quantitative targets, if possible.

It will be possible to quantify the success of the program through the number of awards for best presentations that our participating students will obtain at Conferences. An increase in the number of papers in high-impact factor journals might also be expected as an outcome.

