

Tips and Guidelines for SRP work

Research Question Wording

Good research questions have the following features:

- Simple
- Require judgment
- Lead to debate
- Has multiple perspectives
- Manageable scope
- Clear vocabulary
- Researchable
- Allow for middle ground

Project Description

The project description must not just fit within the word-count guideline (250 words) and template; it must be able to stand alone as a description of your work.

- **Topic:** The project description should begin by explaining to the reader what your project is attempting to answer/address/contribute to. Is there a problem that needs to be solved? An overlooked topic that could contribute to an existing body of research? A form of art that could contribute to awareness on a topic? An investigation of a field or career that contributes to your understanding/future plans?
- **Significance:** Write why this project or problem is significant. Even if there is no indication of how the project will turn out, or what results may be produced, the reader should understand why it's important.
- **External Experience:** Explain where the project will be conducted (whether in person or remotely), and state why this location/company/group is a good place to pursue your topic of inquiry.
- **Methods:** What methods and means will be used to address the topic? Summarize the approach to the topic, and indicate the reasons for it.
- **Hypothesis/Expectation:** This does not have to be a firm hypothesis but rather an expectation of the results. What do you hope to do/discover/find/contribute to?

Tips

- Keep it in the present tense as much as possible (incorporate future tense where appropriate for results not known, i.e., “This project addresses X, and will evaluate the effectiveness of doing Y in Z conditions”). Even if some of the results are already known, keep the tone of the project description more like a preview. Readers should not see conclusions in the project description; that is what the presentation is for.
- Find other readers who can say whether or not the project description is cohesive and clear, and if anything can be cut.
- Keep it concise — try to complete the project description in fewer than 250 words, as even a 250-word project description might not fit in the allotted space.
- Remember that the project description might need to be revised during time off campus, so check for email from the advisor or administration often.
- See the following examples for writing the project description

Example 1

FAULTY FORENSIC EVIDENCE AND FALSE CONVICTIONS
BASIS Faculty Advisor: XXXXXXXX

External Advisor: XXXXXXXXX

Location: Arizona Innocence Project

PROJECT DESCRIPTION

In criminal law, the standard to convict is beyond reasonable doubt. Due to this incredibly high standard, expert testimony is key to a jury's verdict, and forensic evidence is the "proof" many juries need to convict beyond a reasonable doubt. But not all forensic sciences are created equally, and faulty forensic evidence can have drastic consequences. The Arizona Innocence Project has a number of cases in which scientifically inaccurate forensic evidence was used to falsely convict, leaving innocent people in prison for decades. Here, we show the relationship between faulty science and false conviction. By working with these cases hands-on in the aftermath of conviction, we can examine how this evidence directly affects convictions and how the truth about its scientific invalidity can be hidden from jurors, judges, and defendants. Our justice system is meant to be based in truth and evidence, and improperly relying on forensic evidence can not only convict an innocent person, but it can set free a guilty one.

Example 2

PERFORMANCE TESTING OF MODEL FOR A ROBOTIC PROSTHESIS

BASIS Faculty Advisor: XXXXXXXXX

External Advisor: XXXXXXXXX Director, Center for Bioengineering Innovation

Location: Northern Arizona University

PROJECT DESCRIPTION

Have you ever wondered what it takes to power a powered foot-prosthesis? Or maybe you didn't know it needed power at all. For the past few years, powered foot-prostheses have become more and more popular in the world of physiology. How does this tie into the human body? The human ankle acts as a spring by exerting and releasing energy and force into the foot. The goal of the prosthesis is to generate the same amount of ankle torque that is given off by a human ankle during the gait cycle. The gait cycle is the sequence of events that occur during normal walking. By studying the forces exerted and created in the gait cycle, the NAU lab team can adjust the forces given off by the motor in the foot prosthesis to match those of an intact human ankle. My role is to aid the team in collecting and analyzing the data and applying the newly found modifications to the device. The long-term goal is to allow people with lower-limb amputations to walk as comfortably as possible along various terrains and to make walking with a prosthesis feel as if it were an intact human ankle. By conducting this sort of research, the field of physiology is advancing the technology used in foot-prosthesis devices which can further be used to advance the prosthesis devices of other body parts such as arms and legs.

Blogs

Requirements

- Senior Project and AP Research participants must post in a blog at least once a week for the 10 weeks that they are off campus.
- Students must also respond to a minimum of two of their classmates' blogs each week.
- Students may not post profanity, copyrighted images, and/or other inappropriate materials.
- Message from Legal Team: You must use caution in posting images to your senior blogs. You must have a right to use the image that you post, either because it is your original work or you have secured the appropriate permissions from the owner of the image. To do so, you will need to check the copyright requirements, which are usually found at a link on the page on which you located the image. You must also ensure that any images posted are

appropriate for use in connection with a school project. All school rules and the Code of Conduct apply to what you post on your senior blog.

- If you do have permission to use text or an image, cite your sources for text and images. All bloggers, regardless of platforms or purpose, are responsible for documenting the information, images, and other content they access from anywhere other than their own experience. If the photos are from your friend, cite it as “photo courtesy of [Jane Doe].” If you cannot identify the person who made the content, cite the website you accessed it from.

Tips and Guidelines

- Please consider your ideal audience for your blog entries. While you can never be sure who exactly is reading your blogs, there *will* be people from your school’s administration, BASIS.ed, and the colleagues of your off-campus adviser. Additionally, we know that many different college admissions representatives check in on the blogs, so keep them focused on your project! Each entry should be a reflection of your academic self.
- Everyone at some point will feel stuck. Maybe you have a hypothesis that does not work out, or you are sick for one week. Maybe the worst happens, and your on-site advisor backs out, or your location can no longer be used. This has happened before, and will happen again! Try to make sure you are still blogging about what avenues you are exploring to make it through the problem. Read what you are interested in, and write reviews of articles or books related to your area of interest. These are problems you are likely to face in college or career; showcase that you can make the best of it.