DESIGNING BROADER IMPACTS AND OUTREACH

Developed by MSU Extended University, Summer 2015, to help proposal writers
plan broader impacts strategies to accompany their research.

1. YOUR RESEARCH HOOK

How does your research make a positive difference in the world? In other words, why should the average person care about it? (Try to use less than 50 words with no jargon.)

_____
_____
_____

2. PICK YOUR IMPACT

Choose at least one of the following areas from the NSF grant proposal guide upon which to focus. Which one(s) fit best with your statement above or are areas in which you could work most successfully?

❑ Full participation of underrepresented groups in STEM (women, persons with disabilities, and underrepresented minorities)
❑ Improved STEM education and educator development
❑ Enhanced infrastructure for research and education
❑ Increase public science literacy and pubic engagement
❑ Diverse competitive STEM workforce
❑ Partnerships between academic, industry and other
❑ Improved well-being of individuals in society
❑ Improved national security
❑ Increase US economic competitiveness

Describe how the proposed BI make sense with regard to the research goals and objectives._____
_____
_____

3. STATEMENT OF NEED

Is there a need for your proposed BI? Use the following rubric element to enhance your project's impact (Impact Analysis Evaluation Method, Davis & Scalice, 2014).

Needs Assessment: What is the evidence of need?	Fair	Good	Very Good	Excellent
	Prior experience, "seems like a good idea"	Research on what works; Literature review on similar programs/ products/populations/ goals	Conversation with and/or direction from stakeholders (Focus Group); Experts review the ideas/plan	Survey of or pilot with potential audience/users about the draft program

GOALS AND OBJECTIVES

Create a goal and SMART (see below) objectives.

Goal – a broad statement about what you hope to achieve or accomplish through the project

Your Goal _____

Objective – an observable, measure able result that would be expected when your goal is achieved

       S – Specific
       M – Measureable
       A – Aggressive but Attainable
       R – Results-oriented
       T – Time-bound

WHO	VERB	TARGET	TIME BOUNDARY
Who	will do	what + why, how much	when

Your objectives _____
_____
_____

NSF has defined types of impact in five categories. ***What categories are you trying to impact?***
Behavior - intention to change and actual change
Attitude - changes in perspectives toward self, STEM, scientists or a topic
Skills –interpreting data, procedural aspects of knowing, using devices, scientific inquiry
Interest - engagement/interest in a mission, a scientific topic, concept, phenomena, theory, or career
Knowledge – awareness, knowledge, understanding of a particular scientific topic, concept, phenomena, theory, or career

EVALUATION
Evaluation is a process for determining how well project goals were achieved.
Impact is defined as the intended and unintended effects on the Behavior, Attitudes, Skills, Interests, and/or Knowledge (BASIK) of participants.
Impact is determined based on the *data you collect as evidence of impact* (*the results*) and the *rigor of the methods and measures* you use to collect those data.
Results x Rigor = Documented Impact
Impact is increased by using evaluation for needs assessment, setting goals and objectives, designing experiences, and during implementation
Friedman, A. (Ed.). (March 12, 2008). *Framework for Evaluating Impacts of Informal Science Education Projects*
http://www.aura-astronomy.org/news/EPO/eval_framework.pdf

CHECKLIST
Separate statement for Broader Impacts in

- Project summary
- Project description
- Budget
- Results of previous funding
- Annual and final reports

MERIT REVIEW
- ❑ Does the proposed activity benefit society or advance societal outcomes?
- ❑ Does the proposed activity suggest and explore create, original, or potentially transformative concepts?
- ❑ Is the plan well-reasoned, well-organized, and based on a sound rationale?
- ❑ Does the plan incorporate a mechanism to assess success?
- ❑ How well qualified is the individual or team to conduct the proposed activity?
- ❑ Are their adequate resources available to the PI (either at the home organizations or through collaborations) to carry out the proposed activities?

For help or information, contact Suzi Taylor (taylor@montana.edu) or
Jamie Cornish (jcornish@montana.edu) with MSU Extended University