Collecting and Managing Project Data

QEM NETWORK
Education Research Proposal Development Workshop
NSF’s BPR, ECR and CAREER Programs

Dr. Luria Young
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OVERVIEW

- Institutional Review Board (IRB)
- Review of Data Collection Techniques
- Data Management Plan
- Dissemination and Sharing of Research Results
- Q&A
The Institutional Review Board (IRB)

- Also known as an independent ethics committee (IEC), ethical review board (ERB) or research ethics board (REB)
- Applies research ethics by reviewing the methods proposed for research to ensure that they are ethical
- Purpose is to assure that appropriate steps are taken to protect the rights and welfare of humans participating as subjects in a research study
Exemption from IRB Oversight

- Research in conventional educational settings, such as those involving the study of instructional strategies or effectiveness of various techniques, curricula, or classroom management methods.

- Specific provisions in the exemption to ensure that subjects cannot be identified or exposed to risks or liabilities for studies involving the use of educational tests.
Exemption from IRB Oversight

- Research involving the analysis of existing data and other materials if they are already publicly available, or where the data can be collected such that individual subjects cannot be identified in any way.

- Generally, human research ethics guidelines require that decisions about exemption are made by an IRB representative, not by the investigators themselves.

- Check with your institution’s IRB representative to find out about the process at your institution.
Human Subject Research Trainings

- National Institutes of Health (NIH) (http://phrp.nihtraining.com/users/login.php)
- Collaborative Institutional Training Initiative (CITI) (https://www.citiprogram.org/)
IRB Information

- While an NSF proposal can be reviewed without IRB approval, projects involving human subjects cannot be funded without this certification or its equivalent.

- Researchers should initiate their IRB process with their local IRB representative before or at the same time they submit their proposal to NSF, so that the approval procedure will not delay the award processing.

Data Collection Techniques

- Surveys
- Interviews
- Focus Groups
- Observations
- Tests
- Document Analysis
- Photography
- Other

Obtain background information on data collection techniques and determine which ones are appropriate for your research study.
Resources for Educational Research
Data.....Data.....Data.....Data.....

All this data.......now what?
Data Management Plan

- A clear plan for the use and dissemination of data
- The NSF asks reviewers to review the Data Management Plan
- Must be included as a supplementary document
- The plan should be commensurate with the scope and size of the proposal
Components of the Data Management Plan

https://www.nsf.gov/pubs/policydocs/pappg17_1/pappg_2.jsp#IIC2j
DATA MANAGEMENT PLAN

Proposals must include a document of no more than two pages uploaded under "Data Management Plan" in the supplementary documentation section of FastLane.

This supplementary document should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results (see Chapter XI.D.4).

The Data Management Plan may include:

1. the types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project;
2. the standards to be used for data and metadata format and content (where existing standards are absent or deemed inadequate, this should be documented along with any proposed solutions or remedies);
3. policies for access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements;
4. policies and provisions for re-use, re-distribution, and the production of derivatives; and
5. plans for archiving data, samples, and other research products, and for preservation of access to them.

Some units have specific requirements (http://www.nsf.gov/bfa/dias/policy/dmp.jsp). If guidance specific to the program is not available, then the requirements established in this section apply.

Simultaneously submitted collaborative proposals and proposals that include subawards are a single unified project and should include only one supplemental combined Data Management Plan, regardless of the number of non-lead collaborative proposals or subawards included.

A valid Data Management Plan may include only the statement that no detailed plan is needed, as long as the statement is accompanied by a clear justification.

Proposers who feel that the plan cannot fit within the limit of two pages may use part of the 15-page Project Description for additional data management information. Proposers are advised that the Data Management Plan must not be used to circumvent the 15-page Project Description limitation. The Data Management Plan will be reviewed as an integral part of the proposal, considered under Intellectual Merit or Broader Impacts or both, as appropriate for the scientific community of relevance.

Source: https://www.nsf.gov/pubs/policydocs/pappg17_1/pappg_2.jsp#IIC2j
Dissemination and Sharing of Research Results

- Should describe how the proposal will conform to NSF’s policy on the dissemination and sharing of research results
Dissemination of Research Results

https://www.nsf.gov/pubs/policydocs/pappg17_1/pappg_11.jsp#XID4
Dissemination and Sharing of Research Results

Investigators are expected to promptly prepare and submit for publication, with authorship that accurately reflects the contributions of those involved, all significant findings from work conducted under NSF grants. Grantees are expected to permit and encourage such publication by those actually performing that work, unless a grantee intends to publish or disseminate such findings itself.

Investigators are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, samples, physical collections and other supporting materials created or gathered in the course of work under NSF grants. Grantees are expected to encourage and facilitate such sharing. Privileged or confidential information should be released only in a form that protects the privacy of individuals and subjects involved. General adjustments and, where essential, exceptions to this sharing expectation may be specified by the funding NSF Program or Division/Office for a particular field or discipline to safeguard the rights of individuals and subjects, the validity of results, or the integrity of collections or to accommodate the legitimate interest of investigators. A grantee or investigator also may request a particular adjustment or exception from the cognizant NSF Program Officer.

Investigators and grantees are encouraged to share software and inventions created under the grant or otherwise make them or their products widely available and usable.

NSF normally allows grantees to retain principal legal rights to intellectual property developed under NSF grants to provide incentives for development and dissemination of inventions, software and publications that can enhance their usefulness, accessibility and upkeep. Such incentives do not, however, reduce the responsibility that investigators and organizations have as members of the scientific and engineering community, to make results, data and collections available to other researchers.

NSF program management will implement these policies for dissemination and sharing of research results, in a way appropriate to field and circumstances, through the proposal review process; through award negotiations and grant conditions; and through appropriate support and incentives for data cleanup, documentation, dissemination, storage and the like.

Each NSF grant contains, as part of the grant terms and conditions, an article implementing dissemination and sharing of research results.

Source: https://www.nsf.gov/pubs/policydocs/pappg17_1/pappg_11.jsp#XID4
Sample Dissemination Strategies

- “Marketing Plan”
- List some appropriate journals to submit research papers
- List some specific conferences/meetings for professional presentations
- Online Access
- Stakeholder Groups (policy makers, parents, community groups, etc.)
- Social Media
- Radio/TV Advertisements
- Other Creative Strategies