

How to Write Successful Research Proposal

Mohamed A. El-Sharkawi
Department of Electrical Engineering
University of Washington
Seattle, WA 98195
E-mail: elsharkawi@ee.washington.edu
<http://cialab.ee.washington.edu>

What is Research?

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

What is not Research?

- **Research is not just information gathering.**
 - A person collecting information on a specific subject is not research.
- **Research is not rearranging facts.**
 - A person writing a report on a known subject is not research
- **Research is not a sales pitch.**
 - A new improved product developed after years of “research” is rarely a research.

17-19 November, 2006

“How to Write a Successful Research Proposal-2” Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

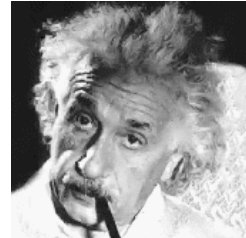
What is Research?

- Research is a *quest for an answer driven by a specific question or idea.*
- Characteristics of Research:
 - It originates with a new question, a new idea or a problem with no acceptable solution
 - It requires a clear articulation of a goal
 - It follows a specific plan of procedure
 - It is bounded by certain critical assumptions

17-19 November, 2006

“How to Write a Successful Research Proposal-2” Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Research is not rearrangement of known knowledge



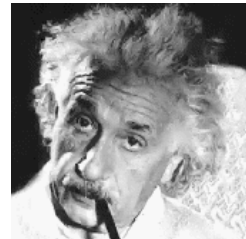
- ***“If we knew what it was we were doing, it would not be called research, would it?”***

Albert Einstein

17-19 November, 2006

“How to Write a Successful Research Proposal-2” Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Research Seeks Out of ordinary ideas



- ***“If at first, the idea is not absurd, then there is no hope for it”***

Albert Einstein

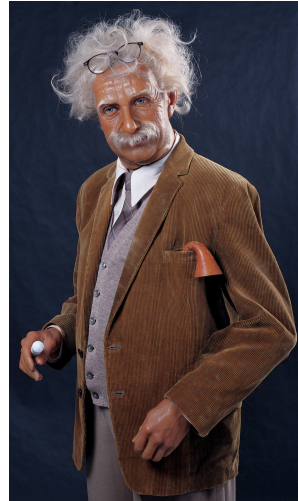
17-19 November, 2006

“How to Write a Successful Research Proposal-2” Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Research Seeks Out of ordinary solutions

- ***“To an uninspired scientist with a hammer, everything looks like a nail”***

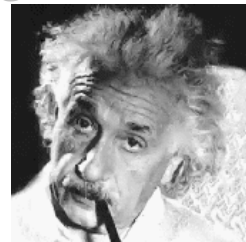
Albert Einstein



17-19 November, 2006

“How to Write a Successful Research Proposal-2” Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Research Requires Imagination



- ***Imagination is more important than knowledge.***
 - *For knowledge is limited to all we now know and understand,*
 - *while imagination embraces the entire world, and all there ever will be to know and understand*
- ***Logic will get you from A to B. Imagination will take you everywhere***

Albert Einstein

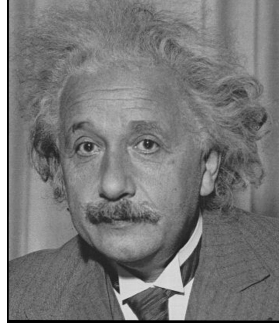
17-19 November, 2006

“How to Write a Successful Research Proposal-2” Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Research and intuition

- ***“The only real valuable thing is intuition”***

Albert Einstein



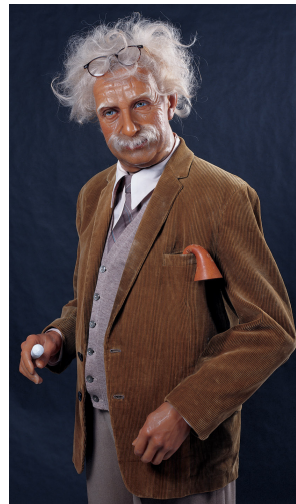
17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Solution Doesn't have to be Complex

- ***When the solution is simple, God is answering.***

Albert Einstein



17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Classifications of Research

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Classifications of Research

- **Abstract research**
 - Highly theoretical
- **Basic research**
 - High risk with potentials for high yield
- **Applied research**
 - Directly related to existing industrial problem
- **Development**
 - Improvements on existing systems

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Classifications of Research

- **Abstract and Basic Research**
 - The luxury of the rich
 - No immediate payback, but could have enormous economic and engineering impacts
 - Long term vision
- **Applied Research**
 - Technologically transferable Research
 - Industry motivated
 - Society Motivated
 - Economic building blocks for developing nations

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Who Fund Basic Research?

- **Government**
- **Major industries**
- **Universities**
- **Private sector**
- **Foundations**

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Research in Developing Countries

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Weak Model

- **Self inventing research:**
 - The problem does not exist
 - Solution is, therefore, not needed
- **Reinvention**
 - Repeating existing work
- **Augmentation**
 - Add minor change to existing state-of-art
- **Disconnected from local needs**
 - Research not related to local environment

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Strong Model

- **Mission Research**
 - Focused research and technology foresight of well established national goals
- **Industry motivated**
 - Research that solves existing problem
 - Results in new products or product improvement
- **Technologically transferable**
 - There should be customers for the research results

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

What is a Proposal?

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Proposal

- A document that presents the case for
 1. An idea
 2. An action one takes to materialize the idea
- The proposal is a request for support to pursue the idea
 - Support the investigator financially so they can free their time to work on the idea
 - To provide support for other staff while working on the project
 - To provide support for equipment and supplies directly used to perform the research
 - To provide support for travel to attend technical meetings related to the research project

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Investigator

- Each proposal has at least one principal investigator (PI) and may include one or more co-principal investigator (co-PI).
- PI is the main person conducting the research
- Co-PI is the supporting researchers on the project

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Funding Agencies

- Foundations investing in future technologies and improving societal wellbeing
- Industry seeking solutions to their own manufacturing and business problems
- Industry seeking new products and technologies to maintain competitiveness in world market
-

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Why would anyone pay someone to do research?

- Almost all the comfort and technologies we enjoy today are the results of funded research
- The developed nations are rich mainly because of their investment in research and their effective technology transfer.
 - The main difference between underdeveloped and developed countries is the quality of research they support.
- Try living without things such as internet, vaccines, modern medicine, airplanes, televisions, automobiles, etc.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Proposal Writing

Material in the following sections are obtained and modified
from

“GUIDE FOR WRITING A FUNDING PROPOSAL”

by

S. Joseph Levine

Michigan State University

<http://www.LearnerAssociates.net>

Facts to Keep in Mind Before Writing a Proposal

17-19 November, 2006

“How to Write a Successful Research Proposal-2” Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Fact 1: Reviewers

- Your proposal is often read by one or two experts in your field. However, the program manager, and perhaps other reviewers are not experts.
- **Remedy:**
 - You must write your proposal for their benefit too.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Fact 2: Overwhelmed Managers

- The program managers and panel members often see a large number of proposals
- **Remedy:**
 - You have to grab your reader's attention from the beginning.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Fact 3: Perfection

- Your proposal may not be perfect
- **Remedy:**
 - ***Keep a humble attitude***
 - Ask people to suggest ways to improve your proposal. Don't be defensive
 - If they misunderstand what you were trying to say, rewrite it to clear the misunderstanding
 - If they don't immediately see the merit of your proposal, rewrite it until they do.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Fact 4: First Page-First Impression

- It is safe to assume that many readers will get no further than the first page.
- **Remedy:**
 - Make sure that the first page is a good summary of the entire proposal.
 - Don't fill it up with technical background.
 - Instead, address the following:
 - what you want to do
 - whether the idea is new
 - why it is important
 - why the proposed solution is sound
 - why you should succeed
 - how much it will cost
 -

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

What are the Reviewers Looking for in a Good Proposal?

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Technical Criteria

- The proposal should articulate a new idea
- The proposal should address a well-formulated problem
- The proposed work should be research, not just a routine application of known techniques
- The problem should be important to the society

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Technical Criteria

- The scale of the problem is large enough to require a special funding to solve it
 - if the problem can be solve quickly, or could be solved using the normal resources of a well-found laboratory, it is not a good proposal

17-19 November,2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Technical Criteria

- The proposal must explain the idea in sufficient detail to convince the reader that the idea has some substance
 - The proposal should explain why there is reason to believe that it is indeed a good idea.
 - It is a mistake to merely identify a wish-list of desirable goals (a very common fault). There must be significant technical substance to the proposal.

17-19 November,2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Technical Criteria

- The proposal must explain clearly what work will be done
 - What results are expected
 - How they will be evaluated
 - How would it be possible to judge whether the work was successful
- The PIs must show evidence that they know about the work that others have done on the problem
- The PIs should have a good track record, both of doing good research and of publishing it
 - A representative selection of relevant publications by the PIs should be cited.
 - Consistent failure to publish raises questions.
 - Absence of a track record is not necessarily damaging for young researchers

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Non-technical Criteria

- A PI with little existing research money could be placed ahead of a well-funded one.
 - On the other hand, existing funding provides evidence of a good track record.
- There is merit in funding a proposal to keep a strong research team together
 - But it is also important to give priority to new researchers in the field.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Non-technical Criteria

- Evidence of industrial interest in the proposed work is an indication for potential success.
 - Especially if the research is expected to produce a product
 - should usually include some industrial contribution to the project.
 - The case for support should include some marketing ideas
 - some thoughts about how the research will eventually become a product
 - identifying an industrial partner
- Among the best proposals are the ones that address technology foresight of well established national entities.
 - including supporting quotes in your proposal

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Common Mistakes

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Common Mistakes

- The proposal is vague in key areas
 - The question addressed by the proposal
 - The outcome of the research
 - The measure of success or failure
 - The contribution to human knowledge
- The proposal lacks evidence of clear thinking
 - The formulation of the problem is poor
 - The planned solution is unclear or illogical

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Common Mistakes

- The proposal doesn't address the importance of the problem being addressed
- The proposal is just a routine application of known techniques
 - The research funding agencies prefer sponsoring research instead of development works
 - Industry or venture capital are expected to fund development work
 - *If no industry is interested then the question of the proposal has no commercial value.*

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Common Mistakes

- Other researchers have addressed the same problem and failed
 - There is no evidence that the PIs will succeed this time.
 - The goals must be substantiated by solid evidence of potential success
- The proposal is written in such a way that gives the impression of "*give us the money and we will figure out how to do the work*"
 - Clearly state all of your ideas
 - Describe your preliminary work that shows evidence that the idea is good.
- The proposal is heavy on showing off your good track record
 - Include a relevant list of publications in the appendix.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Common Mistakes

- Sufficient technical details of the idea are not given
 - The reviewers are underwhelmed
- The proposal is comprehensible to only expert in the field.
 - Some of the evaluators are not experts in all areas of the proposal.
 - A good proposal should be comprehensible to non-experts, while also convincing experts that you know your subject.
 - Keep highly-technical material in specially marketed section
 - Avoid highly technical material in the introduction

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Common Mistakes

- The proposal did not address related research, even if you are dismissing it
 - The reviewers will think that the PIs are unaware of the state-of-the-art
 - A common mistake is to give references only to your own work
- The proposed research appears to have been done.
 - competitor solutions must be discussed and their inadequacies identified.
- The PIs seem to be attempting too much for the funding requested and project time.
 - It is perceived as a lack of realism, poor understanding of the problem, or poor research methodology.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Common Mistakes

- The proposal is too expensive for the probable gain.
 - Expensive proposals are more likely to be rejected.
- The proposal sounds like it might be done by a graduate student on the departmental computer.
 - These type of works should be funded by own institutions.
 - If the research institutions are not adequate, then this is taken to be a weak points against the PIs and the institution.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Quiz

- Mention 5 technical criteria for a well written proposal
- Mention 4 non-technical criteria for a well written proposal
- Mention 5 mistakes you should avoid

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Main Parts of a Proposal

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Main Parts of a Proposal

1. **TITLE**
2. **PROJECT OVERVIEW**
3. **BACKGROUND INFORMATION/STATEMENT OF THE PROBLEM**
4. **PROJECT DETAIL**
 - Goals & Objectives
 - Clientele
 - Methods
 - Staff/Administration
5. **AVAILABLE RESOURCES/NEEDED RESOURCES**
 - Personnel
 - Facilities
 - Equipment/Supplies/Communication
 - Budget
6. **EVALUATION PLAN**
7. **APPENDICES**

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Title/Cover Page

- Funding agencies often have specifications for the Title Page
 - Signatures of key people in your organization such as the Department chair, Dean, and Contracts Officer
 - Collaborators from other organizations should be identified names on the Title/Cover Page
- Your cover page should look professional and neat.
 - However, fancy report covers and expensive binding may send the wrong message that you do things rather expensively!
- The title should be clear and unambiguous (do not make it cute)
- The best titles are the ones that reads like micro abstracts.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Title/Cover Page

- The title should give a quick image of the key ideas of your proposal
 - The words used in your title should clearly reflect the focus of your proposal.
 - The most important words should come first, then the less important words.
 - Remove words that are not necessary for understanding the merit of the proposal
 - Major word in the title should be in capital letters.
 - Try and use only a single sentence for your title.
 - Two part title can be used if a single sentence is not possible.
 - The two parts should be separated by a colon (use only as a last resort!)

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Titles: Example

Example 1: Arrangement of the title

- Title 1 – **Neural Networks and their use for Power Grid Stability**
- **Analysis of Title 1:**
 - The focus is on Neural Network
 - Too many words connecting the two main clauses
- Title 2 – **Power Grid Stability using Neural Networks**
- **Analysis of Title 2:**
 - The focus is on Power Grid Stability
 - Less words are used to connect the two main clauses
- **Main Lessons:**
 - Arrange the title so that the clause with the main idea is written before the others
 - Remove words from your title that really are not necessary for understanding the project ideas.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Titles: Example

Example 2: Simplicity

Title 1 – Observing the Ocean Intrinsic Actions
by Local Initiative to Create a Cable-based
Underwater Power System

Title 2 - Power System for Ocean Observatories

Analysis:

- Title 1 is too complex with unnecessary clauses
- Title 2 is as informative as Title 1

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Project Overview

- The Project Overview should be an Executive Summary of the ideas
 - **Executives** are busy and they often have enough time to read just the overview
- The Project Overview should be specific and concise.
 - Detail should be clarified at a later point in your proposal.
- The Project Overview should give the correct information on your proposal in the mind of the **reader, not the writer**

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Project Overview

- The Project Overview is the framework of the rest of the proposal
- The Project Overview should show your knowledge of the funding agency.
 - Your research project should address key concerns of the funding organization (community benefit, national strategic directions, etc.)
 - If you are collaborating with other organizations, their interests should also be highlighted in the Project Overview.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Project Overview

- The Project Overview should be written after you have completed the entire proposal.
 - Only then you understand all aspects of your proposal
- The Project Overview form a strong impression on your ideas. Do not give any of the following negative impressions:
 - Idea is not original
 - Proposal is unfocused
 - Rationale is weak
 - Writing is vague
 - Uncertain outcomes
 - Does not have relevant experience
 - Problem is not important
 - Project is too large for the PIs
 -

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Project Overview: Exercise

- Using the attached Proposal, identify the main elements of the Overview.
- Is the overview sufficiently informative?
- What are missing?

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Background Information/Statement of the Problem

- It is a review of relevant previous work
 - Cite previous work similar to what you are proposing.
 - Show that you know what you are proposing because you are knowledgeable of the-state-of-the-art.
- Show how your project
 - extends the previous work
 - avoids the mistakes or shortcomings of earlier work
 - is unique
- Be careful in your use of language. Minimizes the use of
 - Jargons
 - Confusing language
 - Trendy words
 - Abbreviations
 - Colloquial expressions
 - Redundant phrase

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Background Information/Statement of the Problem

- Show that your proposed work is definitely needed and should be funded
 - You will need to substantiate your claims
- You should address the following questions
 - What are the pressing problems that you want to address?
 - How do you know these problems are important?
 - What other sources/programs similarly consider these needs as major?
- Check to see that the potential funding agency is committed to the same problems that your proposal is addressing

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Background Information/Statement of the Problem

- Show how the problems you are addressing will help the potential funding agency in fulfilling their own goals and objectives.
 - As you write, keep the funding agency in your mind as a "cooperating partner" committed to the same concerns that you are.
- Show any special reason that your organization is uniquely suited to conduct the project
 - Geographic location, expertise, prior involvements in this area, close relationship to the project clientele, etc.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Background Information/Statement of the Problem

- In the following sections of the proposal, it is important to refer back to the needs you've identified in this section
 - show how your methods will respond to these needs.
- It is advantageous to show that you have already taken some small steps to begin your project
 - An excellent small step that can occur prior to requesting funding is a need assessment that you conduct (survey, interviews, focus groups, etc.).
 - Write up your need assessment as a short report, cite the report in your proposal, and include a copy with the proposal.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Background Information/Statement of the Problem: Exercise

- Using the attached proposal, identify the main elements in the background section.
- Is the background section sufficiently informative?
- State any idea to improve on the background section?

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Projects Details: Goals and Objectives

- **Goals** are the large statements of what you hope to accomplish
 - usually aren't very measurable
 - create the setting for what you are proposing.
- **Objectives** are operational
 - gives specific things you will be accomplishing in your project
 - are measurable.
 - form the basis for the activates of your project
 - serve as the basis for the evaluation of your project

17-19 November,2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Projects Details: Goals and Objectives

- Try and differentiate between your goals and your objectives - and include both.
- Present measurable objectives for your project
 - If you are dealing with engineering problems, it is easier for the objectives to be measured
 - Abstract ideas are hard to measure.
- Show that there is considerable overlap between the goals and objectives for your proposal and the goals and objectives of the funding organization.
 - If there is not a strong overlap, find another funding agency

17-19 November,2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Projects Details: Examples of Goals and Objectives

- **Goal:**
 - To build underwater observatory
- **Objectives:**
 - Build underwater power network
 - Feed the power network from two shore stations
 - Provide interface between power network and science equipment

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Goals and Objectives: Exercise

- Identify the goals and objectives in the attached proposal.
- Identify the weaknesses and strength in the text and provide your own opinion on how to improve on it.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Projects Details: **Clientele**

- Identify your clientele (beneficiaries of your work)
 - Who are they?
 - Who is included in the clientele group?
- Show your relationship with the clientele group
- Show that you have the support of the clientele group to move ahead with the project
- If members of the clientele group were involved in the preparation of the proposal, state that
- Show why it is important for the funding agency to be supportive of your clientele.
 - How assisting your clientele is in the best interests of the funding agency.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Projects Details: **Methods**

- There should be a very clear link between the methods you describe in this section and the objectives you have previously defined.
 - Be explicit and state exactly how the methods you have chosen will fulfill your project's objectives
- The funding agency will examine your methods looking for
 - what is new in your proposal
 - what is unique or innovative.
 - the importance of the proposed method to the solution
- Clearly indicate how the methods allow the outcomes of your project to have value beyond your own project.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Projects Details : Exercise

- What are the weaknesses and strength of the project details in the attached proposal?

17-19 November,2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Projects Details: Staff/Administration

- Describe the roles of the different people associated with your project and the importance of each.
 - The validity for what you are proposing is directly related to the people who will work with the project.
 - how each of the roles are essential to the success of the project
- So what do you say about your key people?
 - Include their name, title, experience, and qualifications.
 - The descriptions of your personnel should let the funding agency know that you have excellent people who are committed to the project.
- Funding agencies often like to see team work

17-19 November,2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Projects Details: Staff/Administration

- If you will be using a Steering Committee (Advisory Committee, Governing Board, etc.) to assist in your project, describe how it will be organized and who will be included
 - A Steering Committee can be politically very helpful to you and your project.
 - You can enlist the support of a variety of other agencies/organizations by placing a representative of these agencies/organizations on your Steering Committee.
 - Define the length of service for the members of the Steering Committee to minimize the length of service of someone who may not be helpful!
 - A viable Steering Committee can suggest to a funding agency that
 - the project has strong links to the community
 - the project has a good chance of continuing after the funding period is over

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Staff : Exercise

- Evaluate the staff section in the attached proposal.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Available Resources

- Collaborative efforts are considered very favorably!
 - Many funding agencies like to see cooperative ventures as the basis for community interest.
 - Project funding is coming from different sources which minimizes the risk taken by any one agency
 - Local resources could be hidden (in-kind)
 - time that volunteers donate to your project
 - materials that local merchants may provide
 - local experts who can provide help/advise when needed
 - a friend who is willing to do some word processing, etc.
 - in-kind resources can show the funding agency that you are strongly rooted in your community.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Available Resources

- It is very impressive to the funding agency if local resources have already been contacted and plans to include them in the project have already been made.
 - Letters from local resources supporting the project (included in the Appendix) are an excellent addition to the proposal.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Available Resources

- Provide a brief description of the facilities that will be used for the project.
 - Lab space
 - Equipment
 - Technical support
- Consider describing existing facilities as in-kind contributions to the project.
 - free access to classrooms
 - meeting space at a libraries
 - project room in a local office building
- It can be helpful to indicate how much additional money the funding agency would have to provide if these facilities were not donated

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Available Resources : Exercise

- Evaluate the available resources in the attached proposal.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources: **Personnel**

- Identify the people who will be paid from the grant
 - Include short descriptions of each of them
 - Make sure that the people are ideally suited to conduct the research
- Instead of having all full-time staff on the project, consider having a number of part-time staff
 - especially if the part-time staff currently work with other cooperating organizations.
- Make sure you notify people who you identify in your Personnel section and receive their approval **before** you send in your proposal.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources: **Facilities**

- Identify any facility that you need for the project
- Show why it is not reasonable to assume that these facilities should exist in your research institute
- Justify the cost of the new facilities
 - Long term use
 - Broader use
 - Cost centers
 -

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources: **Equipment/Supplies/Communication**

- List the equipment needed for your project.
 - Be aware that funding agencies are usually much more willing to provide funds for the support of personnel than they are to support the purchase of equipment
- Types of equipment that may be needed for a funded project:
 - computer/monitor/printer (for general project support)
 - tape recorder (for recording interviews, dictating reports, etc.)
 - video cassette recorder and television monitor (for recording project activities, documenting change, etc.)
 - desks/chairs/tables
 - telephone conferencing equipment
 - photocopy machine

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources: **Equipment/Supplies/Communication**

- Whatever you purchase on the project, should be solely used in the project
- Find the actual cost of the equipment you need.
 - Guessing the cost can be challenged by the funding agency
- Be sure to include supplies such as stationery, postage, word processing software, and pencils/pens
- Coffee, cups, cakes or other "supplies" for morning and afternoon breaks are usually not funded

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources: **Equipment/Supplies/Communication**

- Cost of sharing information with others should be included.
 - Newsletter, website, video conferencing, workshops, etc.
- **The more open you are and willing to help others learn from your experiences the more likely a funding agency will be interested in your proposal.**
 - Hosting some form of workshop on the area of research is a good way to publicly recognize your funding organization.
 - Invite someone from the funding organization to attend the workshop so they can hear what others think about the investment they have made.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources : **Exercise**

- Evaluate the needed resources in the attached proposal

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Evaluation Plan

- Describe how you will decide whether or not your project has been successful and has achieved its objectives
- The Evaluation Plan will tell the prospective funding agency how you will be going about showing them at the end of the project that their investment in you was a good one.
- If you plan to use a survey or questionnaire to help in evaluating the success of your project, you may want to include in the Appendices a draft of what you are considering for the questionnaire/survey.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Evaluation Plan

- Include **formative evaluation** and **summative evaluation**
 - **Formative evaluation:** feedback on the project while it is being conducted
 - **Summative evaluation:** whether the project fulfilled its proposed objectives

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Evaluation Plan

- Create a summative evaluation plan if you have done a good job of clearly stating your project objectives or expected outcomes.
 - Make direct reference to your objectives in your evaluation plan.
 - The reader of your proposal will now be hearing the same message repeated in different sections of your proposal
- A good evaluation plan should include some sense for what goes on following the conclusion of the funding period.
 - How will the initiatives that have been started under the project be sustained?
 - Have new things occurred that will be continued in the future?
 - How will other cooperating agencies assist in continuing the project after the conclusion of the funding period?

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Evaluation Plan : Exercise

- Access the evaluation plan of the attached proposal

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources: **Budget**

- Make your budget *realistic*.
 - Request what you exactly need to carry out the project
 - Funding agencies can easily tell when someone has inflated a budget
- Have a fiscal specialist in your organization review your budget to see how realistic you are.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources: **Budget**

- Phase-up the project
 - It is not realistic to expect a new project to spend large amounts of money during the first 6 months of operation
 - Ask for a small amount of funding for the first phase of the project
 - Specify in your proposal what you expect to achieve during this "minimal funding" phase
 - Return to the funding agency and ask for funds for the next phase.
 - The funding agency will be able to assess your success
 - It is essential for you to make sure the first phase *IS* successful

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources: **Budget**

- Check with the agency to see if they have suggested/required budget categories that they want you to use
- If the potential funding agency doesn't have any budget requirements, organize your budget around a set of meaningful categories that work for the project you are proposing.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources: **Budget**

- Categories that you may want to consider for itemizing your budget are:
 - Personnel (salary and benefits)
 - Consultants (salary)
 - Equipment
 - Supplies
 - Materials preparation
 - Travel
 - Rental of facilities
 - Evaluation
 - Other expenses
 - Indirect costs (costs that your organization requires that you include)

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources: **Budget**

	Year 1	Year 2	Year 3
PERSONNEL	.	.	.
Person #1	.	.	.
Person #1	.	.	.
Person #3	.	.	.
Sub-Total	.	.	.
SUM TOTAL			.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources: **Budget**

	Year 1	Year 2	Year 3
FACILITIES (list)	.	.	.
Sub-Total	.	.	.
EQUIPMENT (list)	.	.	.
Sub-Total	.	.	.
SUPPLIES (list)	.	.	.
Sub-Total	.	.	.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Needed Resources: **Budget**

	Year 1	Year 2	Year 3
COMMUNICATION (list)	.	.	.
Telephone	.	.	.
Postage	.	.	.
Sub-Total	.	.	.
TRAVEL (list)	.	.	.
Fuel	.	.	.
Vehicle Rental	.	.	.
Rail Tickets	.	.	.
Sub-Total	.	.	.
.	Year 1	Year 2	Year 3
TOTAL	.	.	.
SUM TOTAL			.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Budget : **Exercise**

- Write a budget for a project with a total amount not exceeding LE150,000.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Appendices

- Appendices should be devoted to those aspects of your project that are of secondary interest to the reader.
- Examples of Appendices Items:
 - **Dissemination Plan** - An important aspect of your proposal is your plan for disseminating information of/from the project to others
 - **Time Line** - A clear indication of the time frame for the project and the times when each aspect of the project will be implemented. Try creating the time line as a graphic representation
 - **Letters of Support** - Funding agencies would like to know that others feel strongly enough about your project that they are willing to write a letter in support of the project.
 - Do not write the letters for the agencies - they will all sound alike and will probably defeat your purpose of using them.
 - The letters must be substantive. If not, do not use them!
 - Have the letters addressed directly to the funding agency. (Do not use a general "To Whom It May Concern" letter

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina

Appendices

- Examples of Appendices Items:
 - **Cooperating Agency Descriptions** –
 - Provide a more detailed description of each of these agencies
 - Give the name/address of the agency, names of key personnel, and brief descriptions of the major services provided is sufficient.
 - **Evaluation Instrument** - Include a draft copy of the actual evaluation instrument you plan to use (survey, questionnaire, interview guide, etc.).
 - Indicate DRAFT at the top of the instrument and then make it look as real as possible.
 - Never say things like, "I think I may have a question that deals with...", or "Four or five questions will be included that examine the concern of...".
 - If you will be using an interview procedure or a focus group discussion, include a draft copy of the specific questions that will actually be used for the interview/discussion.

17-19 November, 2006

"How to Write a Successful Research Proposal-2" Workshop
Center for Special Studies and Programs / Bibliotheca Alexandrina