Writing Proposals

Nayda G. Santiago, PhD, PE

Capstone Courses Computer and Electrical Engineering

Jan 2010

Purpose

- The general purpose of any proposal is to persuade the readers to do something
  - persuade a potential customer to purchase goods and/or services
  - persuade your employer to fund a project
  - implement a program that you would like to launch

Who writes proposals

- Undergraduate Students
  - Convince faculty to accept project as appropriate for the course
    - Example: Micro II and Capstone
- Graduate Students
  - Persuade a committee to approve research plan.
- Faculty
  - Convince funding agency to fund research work.
- Engineers in General
  - Convince sponsor that my company/group provides the best solution for _____.

Characteristics of a Successful Proposal

- For undergraduate courses
  - Solid background
    - Read, read, read
  - Feasible
    - Well planned
  - Relevant
    - Associated to the course

Answers questions

- *WHAT* you are proposing
- *HOW* you plan to do it
- *WHEN* you plan to do it
- *HOW MUCH* it is going to cost

Basic elements

- Beginning
  - Introduction
- Middle
  - Body of material to be presented
- End
  - Conclusion/recommendation

Introduction

- Summarizes the problem you intend to solve and your solution
- Include the benefits the reader/group will receive from the solution and the cost of that solution

The BODY

- Explain the complete details of the solution
  - how the job will be done, broken into separate tasks
  - what method will be used to do it, including the equipment, material, and personnel that would be required
  - when the work will begin
  - when the job will be completed
  - It should also present a detailed cost breakdown for the entire job.

CONCLUSION

- Emphasize the benefits that the reader will realize from your solution to the problem and should urge the reader to action

- It should be encouraging, confident and assertive in tone.

Persuasive writing

- *Proposals are informative and persuasive writing because they attempt to educate the reader and to convince that reader to do something.*

Characteristics

- *The goal of the writer is not only to persuade the reader to do what is being requested, but also to make the reader believe that the solution is practical and appropriate.*

- *Facts must lead logically and inevitably to the conclusion and/or the solution presented.*

- *Evidence should be given in a **descending order of importance**, beginning with the most important evidence and ending with the least important.*

Format

- **Front Matter**
  - **Letter of Transmittal**
  - **Title Page**
  - **Project Summary** (approx. 200 word abstract)
- **THE PROPOSAL**
  - **Introduction**
    - **Body**
      Project Proposal: (Includes Statement of the Problem, Proposed Solution(s), Program of Implementation)
  - **Conclusion/Recommendations**
- **Back Matter**
  - **Bibliography and/or Works Cited**
  - **Qualifications** (of writer(s) and/or project implementers)
  - **Budget**
    (Itemization of expenses in the implementation and operation of the proposed plan, and detail of materials, facilities, equipment and personnel)
  - **Appendices**

Format

- **Front Matter**
  - **Letter of Transmittal**
  - **Title Page**
  - **Project Summary** (approx. 200 word abstract)
- **THE PROPOSAL**
  - **Introduction**
    - **Body**
      Project Proposal: (Includes Statement of the Problem, Proposed Solution(s), Program of Implementation)
  - **Conclusion/Recommendations**
- **Back Matter**
  - **Bibliography and/or Works Cited**
  - **Qualifications** (of writer(s) and/or project implementers)
  - **Budget**
    (Itemization of expenses in the implementation and operation of the proposed plan, and detail of materials, facilities, equipment and personnel)
  - **Appendices**

Use well known relevant references, cite them.
Web pages are not necessarily relevant

Your BIO!!

What interferes with the flow

Analysis of the Situation Requiring a Proposal

- What is the subject of the proposal?
- For whom is the proposal intended?
- How do you intend the proposal to be used?
- What is the deadline date for submission of the proposal and for tentative implementation of the proposed solution?
- Have you reviewed the literature that would provide supports for your proposal? (Include a literature review.)

The title

- Choose a title that conveys information about your project.
- Avoid acronyms that have negative connotations.
  - Ex: Qwiki
- Make it Brief
  - http://www.amazon.com/Fleeced-Terrorist-Do-Nothing-Washington-Governments/dp/0061547751

Abstract or Summary of the Proposal

- A condensed version of the longer work, and it summarizes and highlights the major points of the report.

- It included: the subject, scope, purpose, methods, and (in the case of previous work) obtained results of the study, as well as any recommendations and conclusions made.

Types of abstracts

- **Descriptive Abstracts**
  - tell readers what information the document contains.
  - include the purpose, methods, and scope of the document.
  - do **not** provide results, conclusions, or recommendations.
  - are always very short, usually under 100 words.
  - introduce the subject to readers, who must then read the report, article, or paper to find out the author's results, conclusions, or recommendations.

Informative Abstracts

- communicate specific information from the report, article, or paper.
- include the purpose, methods, and scope of the report, article, or paper.
- provide the report, article, or paper's results, conclusions, and recommendations.
- are short -- from a paragraph to a page or two, depending upon the length of the original work being abstracted. Usually informative abstracts are 10% or less of the length of the original piece.
- allow readers to decide whether they want to read the report, article, or paper.

Problem Statement

- Provide a clear objective statement of the problem.
- Describe the factors that have contributed to the problem.
- Describe what has and has not worked in the past.
- Indicate what needs to be done (by you) now.

The rationale and significance

Never assume the proposal reviewer knows what you know.

Convince the reviewer that the problem is IMPORTANT!

Persuasive rationales

Describe how the project will…

- Resolve an important question
- Develop better models
- Influence public policy
- Improve a process
- Improve the way people do their jobs in a particular field
- Improve the way people live

Literature review

Display your awareness of the problem or need as well as the contributions that have been made by others—some of whom may be reviewers of your proposal!

Show you understand the problem!

- Use the adequate "Terms" and "Vocabulary" to Describe the Problem.

- Provide the most recent data and/or information about the problem.

- Describe the gaps and contradictions that currently exist.

Show you know the solution!

- Describe a solution to improve the situation.
- Back up your solution with data if possible.
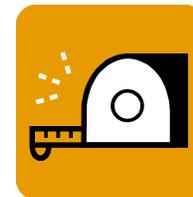- Quote or cite well known authorities on the topic.

Project design

Goals, Objectives and Activities Should Always Relate to One Another

Well written objectives

- State <u>Who</u> is Responsible
- State <u>What</u> is to be Accomplished.
- State <u>When</u> the Objective should be Accomplished
- State a <u>Criterion</u> for Success

- Objectives are specific, observable, and measurable outcomes. In contrast, goals are general and non-specific.

Examples of objectives

- Launch four new testing programs in the coming fiscal year.

- Within the next six months, reduce the reject rate for registration forms in Program ABC from its present level of six percent to a maximum of three percent.

- By the end of the asthma management classes, 75% of patients will be able to describe and demonstrate the correct use of a Peak-Flow Meter.

Key personnel

Describe the people that will help to make decisions in how the project is carried out.

Provide a description of their background, training, and expertise.

Highlight everyone's accomplishments—this is not the time to be modest!

How are tasks assigned to the right person?

Facilities & resources

Describe where the project will be conducted.

Describe any special equipment or resources you will have access to.

Describe any special capabilities or experiences possessed by your group to carry out the project.

Budget

Ask for the funds that you need to be successful, but do not pad your budget.

Be aware that proposal reviewers know how much things cost!

If you ask for too little money to do the work you propose, you will appear naïve and inexperienced.

Time lines

Sponsored project activities can take longer than anticipated.

Do not propose to do too much in any given project period.

Develop a time line for the reviewer.

Evaluation

- Describe how you will find out if your project is working.

- Describe how you will know if you have succeeded when the project is over.

- Describe how you will adjust your procedures and timelines to deal with real life events.

- Tell the proposal reviewers who will conduct the evaluation and review the information collected.

Performance Indicators

- Quantifiable measurements, agreed to beforehand, that reflect the critical success factors of a project.
- They must reflect the project's goals, they must be key to its success, and they must be quantifiable (measurable).
  - to be of any value, there must be a way to accurately define and measure it.
- Project Management Success
  - Efficiency of project execution
- Project Product Success
  - Project end product

Validation

- How are you going to make sure that everything works as expected?
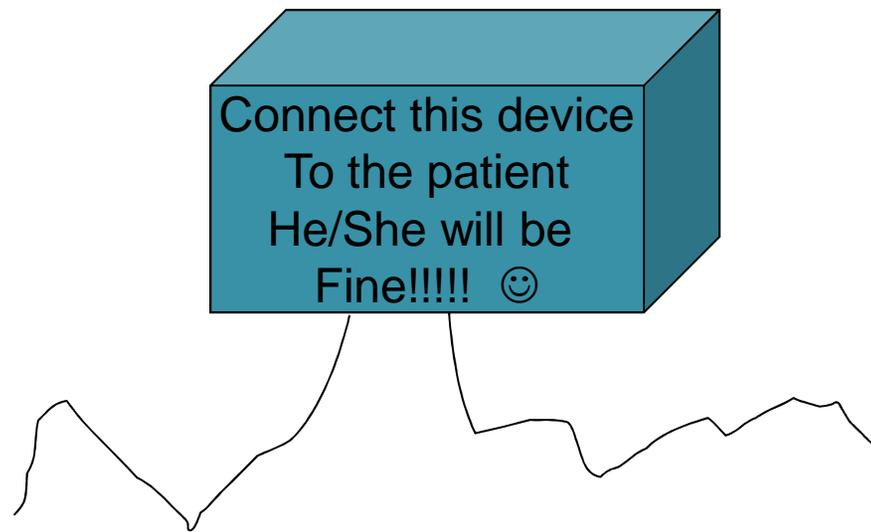
Final comments

- Read proposal guidelines
- Back up strong statements
- Good proposals have references that are NOT web pages
- Read, read, read
  - If you can articulate with the correct vocabulary, you know the subject
- Writing skills
  - No one will take you seriously if you have a proposal full of typos, wrong sentences, etc.
- The first person you have to convince is yourself.

References

- The presentation "Elements of Successful Proposals", by Pam Miller, Director of Sponsored Projects, University of San Francisco has been modified for the preparation of this presentation.

- Seely, John, 2005, Oxford Guide To Effective Writing & Speaking, Oxford University Press.

- Pinkerton, WJ, 2003, Project management : achieving project bottom-line success, McGraw-Hill, New York.