Technical Writing Help

**Executive Summary** – A short letter or page to a business executive that summarizes the project, your methods and most importantly your recommendations.

-Not technical, assume the executive knows money, not engineering

**1st paragraph (33%) – Get the Exec’s attention. Why should he/she care?**

1. State the problem
2. State one sentence recommendation - What are you trying to convince the person to do?
3. State the reason or benefit of the recommendation: “By implementing our suggestions, we predict a cost savings of …” or “ an increase in revenue of..”

**2nd – xth Paragraph – How did you arrive at your recommendation?**

1. What were the methods? (Without being too technical, software, linear programming, etc.)
2. What worked best?
3. Why go with your recommendation? “Project X is projected to generate the most revenue of the alternatives”

**Conclusion (33%)**

1. Restate recommendation.
2. Restate benefit of recommendation
3. Future work. You want to be hired again. Find something that remains lacking in their system or a future project based on your analysis.

**Technical Report** – Longer, more in-depth paper guiding an engineer through your analysis. After reading the technical report, the engineer should be able to repeat your methods and arrive at the same conclusion.

**1st section – Introduction 1-2 paragraphs**

* Problem statement
* Methods Used
* Recommendation
* Anticipated benefits

**2nd Section –** Assumptions

Make clear the assumptions you make in your analysis (eg. Constant demand, arrival times follow these distributions, maximum investment amount, minimum adjusted return rate, etc.)

**Next Sections –** Methods and Analysis

Go through every step of the methods you applied to reach your conclusion. Again, the engineer should be able to replicate what you did exactly and reach the same conclusion.

**Describe decision variables, sets and parameters.**

**Describe the objective function in English, then give the mathematical notation.**

**Describe each constraint in English followed by the math.**

**Analysis.**

**Analyze the output of the computer.**

**Recommendation and conclusions**

Clearly identify what you recommend the company do.

Some solutions are best represented with words AND figures/tables. (Calendars, production schedules, projected profit graphs, percent of resource utilization over time, etc.)

State projected outcomes – “Our analysis projects a cost savings of…”

Based on the analysis, which method worked best / what you learned from the analysis

Restate Recommendation

Projected Outcome of accepting recommendation “This will save…” or “This will boost profits by…%”

Future work. Find something that remains lacking in their system or a future project based on your analysis.