Sample Weekly Project Schedule-Check with Advisors

Week 1. October 20-26

Monday	Orientation meeting with the faculty advisors at 7:00 PM. The purpose of the meeting is for the advisors and you to exchange information that will make the first week a smooth one. The advisors will also go over the schedule for the weekThe faculty will suggest a schedule for weekly meetings at agencies. Half days will be spent in your Spanish immersion course at the Instituto Universal, Av. 2, Calle 9. Your advisor will tell you what your arrival time is.
Tues-Fri Tuesday	Each student project group will meet with its liaison at the agency promptly at the time indicated by the liaison in earlier conversations. The projects officially start then. **It is your responsibility to get instructions from the liaison regarding how to travel to work on that first day**. At the first meeting with the liaison, ask for organizational information, your work telephone number and your liaison's and email addresses for the liaisons. Identify available information sources, including how to gain access to information you will need for your literature review. The faculty will start visits this week so confirm the time with faculty and liaison. Evening meeting with students and faculty at 7:00. Give the contact information to the faculty. Often, there are minor problems to discuss or questions to ask. Sometimes there are feelings that need airing. Also arrange weekly meetings for faculty, liaisons and students.

Week 2. October 27-November 1

Mon-Fri	Second week of Spanish immersion, half days.
Monday	**First draft of Appendix A due at 6:00 p.m.**
Tuesday and Wednesday	On-site meeting with advisors and liaisons. **Schedule the final presentations at your agency.** Generally, this meeting is designed to make sure everyone agrees on the direction and content of the project. You should prepare carefully for the meeting, however, and perhaps prepare materials for your advisors and for your liaison and others from the agency who are involved with your work and who have been invited to attend. (See Appendix A of the Procedures Manual for suggested format of meeting.)

Wednesday-Friday	Summary Progress Chart for Week 1 and proposed work plan due for Week 2 (see Appendix A for forms, which you should copy, and for directions on how to use them). Use these forms each week for meetings with sponsors and faculty. At faculty discretion: Weekly presentations with faculty and other teams at the faculty's apartments. Check with faculty for time. Each team member will speak for five minutes. Prepare your visual aids professionally and carefully and make sure they can be seen by the person farthest away. Critique your colleagues carefully. You have a fifteen-minute period in which to do so. Mannerisms, grammar, voice projection, style, content, the logic of the presentation, the kind and quality of the visual aids are fair game for comments. You should also comment on where and how teammates who are not presenting place themselves while their colleague is speaking. Please remember that the two people who are not speaking to the audience should not be whispering to each other nor should the teams who are in the audience be whispering or giving last minute attention to their own presentations. Each team's presentation requires everyone else's full attention. Past experience dictates that the presentations, while anxiety producing at first, become extremely important to everyone because they provide a forum in which to give and receive honest, thorough, tough, but fair feedback. By now you should have actively begun your research and your plan should be complete. You should know whom and how many people you will be interviewing, and you should have begun making appointments. If you are administering a questionnaire, it should already have been developed and pre-tested.

Week 3. November 3-9

Monday	**First draft of Chapter I. Introduction and Chapter II. Background due by 6:00 p.m. with accurate References page.**
Tuesday & Wednesday	Weekly on-site meetings at agencies This week you should have arranged for your room for your final presentations. You must anticipate properly the correct size of the room you will need.
Thursday	**First Draft of Chapter III. Methodology due by 9:00 a.m.**
Tuesday –Friday	Weekly presentations at faculty discretion.

Week 4. November10-16

Tuesday & Wednesday	Weekly On-site meeting at agencies with advisor at discretion of advisors.
Tuesday-Friday	At faculty discretion, presentations to advisors—focus on preliminary data
Friday	**Second drafts of Introduction and Background with updated References page (attach first drafts) and second drafts of Methodologies due (attach first drafts and first draft of Executive Summary) Table of Contents, Tables, Figures, second draft of Appendix A (attach old draft) due by 9:00 a.m.**

Week 5. November 17- 23

Monday	
Tuesday & Wednesday	Weekly on-site meetings at agencies with advisors.
Friday	Presentations to faculty. Focus on outline of final presentation and your data, conclusions and recommendations.
Friday	***First draft of data and analysis either in one chapter or split into two (Discuss with faculty about which model to use) and chapter on conclusions and recommendations. Due by 9 AM***

Week 6. November 24-30

Tuesday & Wednesday	Weekly meetings at agencies at discretion of faculty. Presentations to faculty. Focus on Conclusions and Recommendations.
Sunday	***Second draft of Data Presentation and Analysis (attach first drafts) and First Drafts of Conclusions and Recommendations by 6 PM***

Week 7. December 1-7

Wednesday	**Weekly meetings at agencies at faculty discretion.**
Saturday	**Draft proposals due to faculty by noon**

Week 8. December 8-14

Monday and Tuesday	Final presentation rehearsals
Wednesday Thursday Friday	FINAL PRESENTATIONS. **Final report due at presentation.**
Saturday	Leave San José

Project Procedures

Due to the heavy workloads that will be experienced during the term, certain procedures have been adopted to facilitate efforts. You will need to determine what word processing software you will have at your agency.

1 At the weekly organization meeting with the faculty advisor, each team will submit a:

> Summary Progress Chart and Proposed Work Plan that includes what was accomplished during the week and specifying who did what. In addition, the summary must included the specific objectives for the following week.

2.When the project is completed and your faculty agree, submit your project electronically. Then, once it is approved by your faculty electronically, print the CDR and get it signed by your advisors. Submit paper and CDs as instructed by faculty. In addition to the copies they request and you want for yourselves and you agencies, you will need paper copies and CDs for Sra. Music and Professor VG.

FORMAL GUIDELINES FOR FINAL REPORT

CONTENTS:
Letter of Transmittal to Sponsor
Title Sheet
Abstract
Executive Summary
Authorship Page*
Acknowledgments
Table of Contents
Tables
Figures
Executive Summary

- I. Introduction
- II. Background and Literature Review
- III. Methodology (or Procedure)
- IV. Results
- V. Analysis of Results (consult faculty if considering combining IV and V.
- VI. Conclusions and Recommendations
- VII. Appendices
- VIII References

Note for student authors:

APPENDICES

- A. Mission and Organization of the Agency
- B.
- C.

* This page is required by WPI for all group projects. It identifies which student holds primary responsibility for each section of the report.

FORMAT FOR LETTER OF TRANSMITTAL

(Business letter format, written to agency liaison)

The Letter of Transmittal is a letter formally submitting the project report to the agency involved. A sample letter of transmittal is given below. The letter must contain the title of the report and include the following sentences:

"Copies of this report are being submitted simultaneously to (faculty advisors) for evaluation".

"Upon faculty review, the original will be catalogued in the Gordon Library of Worcester Polytechnic Institute".

The letter should close with a statement which thanks the liaison for his or her help.

(Sample Letter)

May 8, 2006

Mr. Louis C. Santone, Director
Office of Business and Legislative Issues
U. S. Department of Commerce
San Juan, Puerto Rico 009011

Dear Mr. Santone:

Enclosed is our report entitled The Impact of the Petro-chemical Industry of Unleaded Gasoline Production. It was written at the U. S. Department of Commerce during the period January 9 through May 8, 1999. Preliminary work was completed in Worcester, Massachusetts, prior to our arrival in Puerto Rico. Copies of this report are simultaneously being submitted to Professors Rissmiller and Addison for evaluation. Upon faculty review, the original copy of this report will be catalogued in the Gordon Library at Worcester Polytechnic Institute. We appreciate the time that you and Mr. David Glancy have devoted to us.

Sincerely,

Your Names

TITLE PAGE

Report Submitted to:

Name of WPI Faculty Advisor (s)

Puerto Rico, Project Center

By

(typed names)	(signatures)
______________________	______________________
______________________	______________________
______________________	______________________

In Cooperation With

(names and titles of agency liaison)

____

(name of agency and division)

____

REPORT TITLE IN CAPITAL LETTERS

(Date)

This project report is submitted in partial fulfillment of the degree requirements of Worcester Polytechnic Institute. The views and opinions expressed herein are those of the authors and do not necessarily reflect the positions or opinions of (Agency Name) or Worcester Polytechnic Institute.

This report is the product of an education program, and is intended to serve as partial documentation for the evaluation of academic achievement. The report should not be construed as a working document by the reader.

ABSTRACT

The Abstract is of prime importance, since it is used by readers for guidance as to subject, treatment, and results. Often the quality of the Abstract will determine how much attention a decision-maker will devote to the rest of the report. Therefore, the Abstract must summarize the contents briefly and accurately, and be understandable independent of the text. It must not exceed 120 words in length and should contain no equations, figures or illustrations. The Abstract must contain the name of the organization with which you worked. It might begin, for example: "This report, prepared for he U. S. Department of Commerce□". The Abstract must be single-spaced.
(this abstract, unless revised by the faculty advisors, will appear on your transcript.)

EXECUTIVE SUMMARY

You should be working on this section from the beginning. Like the Abstract, it should be understandable independent of the rest of the report. It should be able to stand by itself, and should be tightly written, concise and right to the point because this may be all that a top manager has time to read. In three pages, you should be able to condense the critical aspects of your report: objectives, methodologies uses, findings, analysis, conclusions and recommendations.

While the format for this section may vary from report to report, the following outline (all in very brief statements) may prove helpful:

Introduction
- Overall Goal and Specific Objectives
- Background
- Present Situation
- Projections
- Constraints
- Alternatives
- Comparison of Alternative
- Results (or Recommendations of Conclusions)

The Executive Summary should not be more 3 pages, unless there are special circumstances.

AUTHORSHIP PAGE

When a single, comprehensive written report is submitted for a project, each individual's contribution to the group effort must be clearly identified. The authorship page is either a simple list of individual chapters and their respective authors or is a statement in which each contributing group member is named as having carried out one or more specific tasks within the overall project effort.

ACKNOWLEDGEMENTS

Students often insert an acknowledgments page if they wish to specifically acknowledge the assistance or involvement of particular people in that project.

CONTENTS

This should be the last part of the report you do, because you cannot fill in the page numbers until you are finished with the report. However, you should have developed the Table of Contents early in the formulation of the report. It can serve as the basic outline of the paper.

TABLES

This functions as a table of contents for tables. Each table should be numbered and labeled and the proper page number indicated.

FIGURES

This functions as a table of contents for figures. Each figure should be appropriately numbered and labeled.

I. INTRODUCTION

The Introduction should contain a section on the significance of the subject matter. It usually runs about 4 to 5 pages in length and describes in general terms what the reader will read in the body of the report. The subject, goals, purposes, importance, method, audience, and anticipated form of the results for the project should all be touched upon. The Introduction must contain the following statement single-spaced:

> This report was prepared by members of Worcester Polytechnic Institute Costa Rica Project Center. The relationship of the Center to the (name of organization) and the relevance of the topic to the (name of organization) are presented in Appendix A.

II. BACKGROUND AND LITERATURE REVIEW

Usually, a project topic will deal with several areas of knowledge. The literature review is a discussion of the theoretical background your topic and current and past research performed in the topic area. It provides the reader with the information necessary to understand your topic. It also leads the reader to understand how and why you formulated the problem in the way you did. Your project is intended to fill a gap in knowledge or add to the store of knowledge in the subject area. In some cases, when a project results in a product such as a video tape, for example, the literature review created the rationale for creating the product, which, in turn, will be used as a tool for actions that in the end will develop knowledge. If your literature review does not clearly provide a rationale for your project, you have not covered your field or you have not conceptualized the problem rationally. Your literature review from D-term should provide you with a <u>good start</u>. But you are expected to expand your own knowledge through new literature sources and to provide the reader with many more sources. Remember, people <u>who have no knowledge in your project area</u> may look at your report in Gordon Library. Your literature review should enable them to understand the basics in your topic area, the rationale of your methodology, the data you discuss, and your conclusions and recommendations. Remember to focus on points not on particular authors or sources, unless they are seminal works in the field that are so commonly recognized that the name of the author or work is immediately recognized.

Lunsford gives you examples of formats for citing sources and reporting references.

Citations should be embedded in the text by number and should be in last name of author and year of publication.

III. METHODOLOGY (or PROCEDURE)

This chapter, one of the most important in the report, must present your methods of analysis in a way that will allow the reader to replicate your efforts with a different sample. The Procedure is the general, conceptual flowchart of the problem-solving approach. You must provide a rationale for all procedures you elect. If, for example, you plan to conduct interviews, you must tell why you chose to conduct unstructured versus structured interviews. If you conducted focus groups, you must justify the choice and describe in detail how you did them. If you sent out questionnaires, why did you do so? Justify the type and size of your interview sample or your questionnaire sample.

Many projects will NOT require statistical analysis. However, if your project does require statistical analysis, why did you choose one statistical procedure over another? What were the difficulties in choosing your sample? How did you pretest your interview questions or your questionnaire? What were the time, money, geographic and human resource constraints? If you did not choose a random sample, why not? If you stratified your sample, why did you stratify it that way? Bailey, K. Methods of Social Research (2nd ed.), or Kidder, L. (1981) Selltiz, Wrightsman and Cook's Research Methods in Social Relations (4th ed.), New York: Holt, Rinehart & Winston are excellent resources and supplement each other.

Whenever possible and **if appropriate** for your topic, make sure that your methodology includes procedures that will allow you to qualify at least some of your results. For example, if you interviewed nine people using an open-ended interview schedule, you may still be able to tabulate your results in some way so that trends at least can be noted, reported in your finding in your findings and analysis chapter(s), and used for the basis of recommendations in your conclusion and recommendations chapter. Be complete and be specific.

In conducting your work, you may have had to modify the procedures you first intended to use. Explain what modifications you made and why. Hunches, even based on interviews, cannot be reported unless they are backed by data that has been analyzed systematically, even if not statistically. Systematic analysis requires organizing data according to criteria set up in advance. Usually systematic analysis means numbers are involved.

Some projects do not lend themselves to quantification. Talk to your advisors.

IV. RESULTS

Sometimes the writing of the report will be more logical when the authors integrate their reporting of findings with the analysis of the data. Before electing to do so, discuss your rationale with your advisors and get their permission. Many of the projects report findings that do not lend themselves to a statistical reporting style. Check with your advisor.

This chapter contains the presentation of the findings of your investigations. Start with the simplest material, but be specific. Your reporting and any arguments you make will be infinitely stronger if you use, whenever possible, tabulations of the findings. An example is, "Six out of twenty people interviewed wanted the airport to be transferred to private ownership". Proceed to more complicated reporting. "In spite of the fact that so few people were in favor of private ownership, the majority - 18 out of 20 - felt that private ownership would result in more efficient service for passengers". Not all projects will lend themselves to this sort of reporting.

Tables may be used when doing so <u>supplements</u> but <u>does not simply</u> duplicate the text. In the text, tell the reader what to look for in the table, but discuss only the highlights. Do not use a table to take the place of text. Each table should be numbered and have a name. Use APA style unless directed otherwise by your advisors.

Readers should be able to understand the table without explanation. Have others who are not in your team look at your tables and tell you what they mean. If the reader does not understand the table, revise it. Refer to the table by number: "High school students are more informed about the tasks of mechanical engineers than they are about those of electrical engineers (See Table II - 4)", for example; or "Table II - 4 shows the number of manufacturing plants that ...."

V. ANALYSIS OF RESULTS

The second part of your Procedure is the Analysis of your Results. You might be combining chapters, but the principles remain the same. The analysis focuses on the significance of patterns you see in your data. This chapter enables you to make recommendations and conclusions by focusing on the significance of patterns you discern in your chapter on Results. Hence, you will be able to say, "Seven out of the nine people indicated a preference for Classic Coca-Cola, indicating a trend". Or, "Since only four out of nine people believed the regulations should be changed, we cannot justify a recommendation to change the regulations. Nevertheless, our sample was so small that we cannot conclusively state that our findings constitute an adequate picture of the opinions of the total population from which the sample was drawn."

Remember that your samples will not be large enough to allow you to make statements about cause and effect. In order to do so, you would have had to use a classic experimental design in which you controlled for all variables except the ones you wished to test. You would, also, have had to use a large sample. Hence, while always referring back to your sample size for justification, you can talk only about trends and about their strength. Provide the reader with alternate explanations for the outcomes of your data. When the majority of adopters of solar equipment are between the ages of 30 and 50, it is not because older people do not like or believe in solar equipment as an energy saver but because older people have smaller access to media sources from which they can learn about solar equipment. Or they have lower incomes than the younger group, and therefore, cannot afford solar equipment, for example. Do not reject data you feel will not support your hypotheses or that will not please your agency. As researchers you have an obligation to report and analyze all relevant data. Disproving a theory or stating that the evidence is inconclusive is always as important as proving a theory.

VI. CONCLUSIONS AND RECOMMENDATIONS

Be sure that all your conclusions are consistent with and follow from an analysis of your data. Everything in this chapter must grow logically from what you have presented in earlier sections.

The chapter indicates what policy recommendations you are making. Recommendations must follow from conclusions, which follow from your analysis, which follow from your data, which follow from your methodology, which follow from your hypotheses, which follow from your discussion of background material including discussion of theories.

While recommendations grow logically from your investigation, they do not necessarily grow logically from the opinions of agency personnel nor from the political climate of an agency. Upon occasion, recommendations may be contrary to what an agency may wish to hear. This is a delicate situation and will require tact on your part. Discuss controversial findings and recommendations with your liaison and advisors, but be true to your data and your analysis.

VII. APPENDICES

You might have several appendices. Web pages or manuals are appendices, not findings.

APPENDIX A. - MISSION AND ORGANIZATION (of Agency)

This Appendix should include a general background statement on the history and development of the agency or organization, recent budgetary trends, how and by whom its policy is set, and a specific statement of current mission, policies, goals and objectives. The original letter from the agency, identifying the topic, should be included as an exhibit. The final section should describe how your project topic is related to the agency's mission, the position and responsibilities of the people working with you in the agency (show an organization chart), and how the project topic's results would affect components of the organization.

VIII. REFERENCES

Use the APA styles of citations unless directed by your advisors to use another model. You will find various web sites that will help you with examples. Also, use the APA Publications Guide for complete instructions.

Possible Guidelines for Final Report (check with your advisors)

1. Use Roman numerals for Chapter Numbers, capital letters for Appendices. All Chapter and Appendix titles should appear as follows:

   Chapter 1. **INTRODUCTION**

   Leave two spaces between headings and the first line of text.
   When using subtitles, capitalize the first letter of each word and
   begin two lines lower.

2. All Figures, Tables and Exhibits in a particular Chapter or Appendix should be identified and numbered by Chapter or Appendix. Use APA style unless directed otherwise by your advisors. Each <u>must</u> have a short descriptive title. For example: Figure 1. Regional growth trends. Table 1. Energy consumption per capita. Page numbering for the final report should be consecutive.

3. **MARGINS -** very important to observe in order to be able to bind all materials in a readable way. (Beware of 8 x 10 1/2 paper)
   From top of page and from right-hand side: 1 inch.
   From bottom of page: 1 1/4 inch.
   From left-hand side: 1 1/2 to 2 inches in order to leave room for binding. Nothing should appear outside these margins except the page number, which should be centered at the bottom of the page or be in the right bottom corner.

4. **Citations** – Unless otherwise directed by your advisors, footnotes should be embedded in the text in parentheses using the APA style. This relatively newly preferred form takes the place of the older standard form for footnoting by numbers and puts the author's last name, year of publication, and when a direct quote is used, page numbers in parentheses. The full citation can be found alphabetically listed in the back of the document in a section called References. For example, (Jones, 1988:63) means that Jones wrote the book or article, published it in 1988 and you are using a direct quote from page 63. When you are not using a direct quote, the citation would be as follows: (Jones, 1988) or (Jones, Smith, Brown et al., 1988) or (Jones in Brown, 1977) unless otherwise directed by your advisors. In all examples, you are using Jones' materials. In the second example, there were more than three authors to the book. In the last instance, Brown wrote the book and cited Jones or Jones had an article in Brown's book. In the References section, use standard citation forms for your full citations. O'Hare gives you a model. Do not call the References section "Endnotes" or "Footnotes" or 'Bibliography".

   You may also have referred to other books and articles from which you got general ideas but from which you have not draw specific enough material that warrants footnotes. In this case, you will want to have an Additional Bibliography section in which you alphabetically list in full citation form those sources.

5. **REFERENCES -** The References come at the end of your project report and should include all books, journal articles, newspaper articles, etc. that you used in researching your topic. The References section is an alphabetical listing according to author of all your listed References. If in the text you referred to (Walters, 1967), you must give the full citation in the References.

Example:

Walters, A. (1967). The Growth of American Industry. New York: Harper & Row.

<u>NOTE</u>: Periods follow the author's name and the title of the work. For journals:

Grant, R., Higgins, C., and Irving, R. (Spring 1988). “Computerized Performance Monitors: Are They Costing You Customers?” <u>Sloan Management Review</u>. Vol. 29: 39-36.

(In this case, the article title is enclosed in quotation marks and the name of the magazine is underlined).

SUPPLEMENTARY GUIDELINES FOR FINAL REPORT

SINGE SPACE all sections of the final copies of the final report, except where you need to provide extra space for the sake of visual effect.

Be consistent in footnote style. The Procedures Manual includes comments on proper citation form and bibliographic form. If in doubt, consult APA Publications Guide.

COPIES OF THE REPORT TO BE SUBMITTED:

1) ONE CD COPY and one bound hard copy for Project Center files (S. Vernon-Gerstenfeld). The CD will be used to duplicate your report for any agencies who wish to have a copy. Make sure, therefore, it is not READ ONLY. That copy should be turned in at the same time that the copy for the Registrar is turned in. Give it directly to the receptionist in the IGSD Office or put it into Prof. VG’s inbox in the IGSD Office.

2) ONE electronically submitted COPY: for the Registrar, which will eventually go into Gordon Library

3) ONE COPY: for each faculty advisor (find out if they want CDs).

4) ONE COPY: for organization liaison find out what format they want.

5) ONE CD COPY: For local coordinator, Mrs. Music – **leave it with her at time of presentation**

6) THREE OR FOUR COPIES: one for each member of the project team.

7) Others as requested by people you interview, for example.

SUPPLEMENTARY GUIDELINES FOR FIGURES

Graphs, charts, and other illustrations are normally referred to as Figures. Tables are referred to as tables.

If a figure takes up 1/2 page or more, give it its own page. Place it as closely as possible to the section of the text to which at refers.

If a figure is more than a page, include it as an appendix to the report.

If a figure is taken from or is a modification from an outside source, credit that source. Use APA style, unless directed otherwise by your advisors.

Source: Statistical Abstract of the U.S., 1966, p. 23

or

Adapted from Statistical Abstract of the U.S., 1966, p. 25.

This sort of reference appears below the figure. Do not use a figure if it is not referred to in your text.

Below is an example of a table:

Table 1. Fruit Grown in Massachusetts. (Given by town in percent of total yield of fruit in state.)

	Leominster	Cambridge	Springfield
Apples	10.0	0.05	6.0
Oranges	3.0	0.01	0.0
Plums	2.0	3.00	I7.0

Adapted from the U.S. Department of Agriculture, July 2008

SUPPLEMENTARY NOTE ON SPELLING

There is no excuse for not using a spellchecker, but a few words commonly misspelled and/or misused are: liaison, effect/affect, methodology/method, which/that - check dictionary for correct
Sample Weekly Project Schedule-Check with Advisors
Week 1. October 20-26
Monday

Tues-Fri

Tuesday

Orientation meeting with the faculty advisors at 7:00 PM. The purpose of the meeting is for the advisors and you to exchange information that will make the first week a smooth one. The advisors will also go over the schedule for the weekThe faculty will suggest a schedule for weekly meetings at agencies.

Half days will be spent in your Spanish immersion course at the Instituto Universal, Av. 2, Calle 9. Your advisor will tell you what your arrival time is.

Each student project group will meet with its liaison at the agency promptly at the time indicated by the liaison in earlier conversations. The projects officially start then. It is your responsibility to get instructions from the liaison regarding how to travel to work on that first day. At the first meeting with the liaison, ask for organizational information, your work telephone number and your liaison's and email addresses for the liaisons. Identify available information sources, including how to gain access to information you will need for your literature review. The faculty will start visits this week so confirm the time with faculty and liaison.

Evening meeting with students and faculty at 7:00. Give the contact information to the faculty. Often, there are minor problems to discuss or questions to ask. Sometimes there are feelings that need airing. Also arrange weekly meetings for faculty, liaisons and students.

Week 2. October 27-November 1

Mon-Fri

Monday

Tuesday

and

Wednesday

Wednesday-Friday

Second week of Spanish immersion, half days.

First draft of Appendix A due at 6:00 p.m.

On-site meeting with advisors and liaisons. Schedule the final presentations at your agency. Generally, this meeting is designed to make sure everyone agrees on the direction and content of the project. You should prepare carefully for the meeting, however, and perhaps prepare materials for your advisors and for your liaison and others from the agency who are involved with your work and who have been invited to attend. (See Appendix A of the Procedures Manual for suggested format of meeting.)

Summary Progress Chart for Week 1 and proposed work plan due for Week 2 (see Appendix A for forms, which you should copy, and for directions on how to use them). Use these forms each week for meetings with sponsors and faculty.

At faculty discretion: Weekly presentations with faculty and other teams at the faculty's apartments. Check with faculty for time.

Each team member will speak for five minutes. Prepare your visual aids professionally and carefully and make sure they can be seen by the person farthest away.

Critique your colleagues carefully. You have a fifteen-minute period in which to do so. Mannerisms, grammar, voice projection, style, content, the logic of the presentation, the kind and quality of the visual aids are fair game for comments. You should also comment on where and how teammates who are not presenting place themselves while their colleague is speaking. Please remember that the two people who are not speaking to the audience should not be whispering to each other nor should the teams who are in the audience be whispering or giving last minute attention to their own presentations. Each team's presentation requires everyone else's full attention. Past experience dictates that the presentations, while anxiety producing at first, become extremely important to everyone because they provide a forum in which to give and receive honest, thorough, tough, but fair feedback.

By now you should have actively begun your research and your plan should be complete. You should know whom and how many people you will be interviewing, and you should have begun making appointments. If you are administering a questionnaire, it should already have been developed and pre-tested.

Week 3. November 3-9

Monday

Tuesday &
Wednesday

Thursday

Tuesday –Friday

First draft of Chapter I. Introduction and Chapter II. Background due by 6:00 p.m. with accurate References page.

Weekly on-site meetings at agencies

This week you should have arranged for your room for your final presentations. You must anticipate properly the correct size of the room you will need.

First Draft of Chapter III. Methodology due by 9:00 a.m.

Weekly presentations at faculty discretion.

Week 4. November10-16

Tuesday &
Wednesday

Tuesday-Friday

Friday Weekly On-site meeting at agencies with advisor at discretion of advisors.

At faculty discretion, presentations to advisors—focus on preliminary data

Second drafts of Introduction and Background with updated References page (attach first drafts) and second drafts of Methodologies due (attach first drafts and first draft of Executive Summary) Table of Contents, Tables, Figures, second draft of Appendix A (attach old draft) due by 9:00 a.m.

Week 5. November 17- 23
Monday

Tuesday &
Wednesday

Friday

Friday

Weekly on-site meetings at agencies with advisors.

Presentations to faculty. Focus on outline of final presentation and your data, conclusions and recommendations.

First draft of data and analysis either in one chapter or split into two (Discuss with faculty about which model to use) and chapter on conclusions and recommendations. Due by 9 AM

Week 6. November 24-30

Tuesday &
Wednesday

Sunday
Weekly meetings at agencies at discretion of faculty.

Presentations to faculty. Focus on Conclusions and Recommendations.

Second draft of Data Presentation and Analysis (attach first drafts) and First Drafts of Conclusions and Recommendations by 6 PM

Week 7. December 1-7

Wednesday

Saturday

Weekly meetings at agencies at faculty discretion.

Draft proposals due to faculty by noon

Week 8. July 2-July 5

Monday and Tuesday

Wednesday
Thursday
Friday

Saturday
Final presentation rehearsals

FINAL PRESENTATIONS.
Final report due at presentation.

Leave San José

Project Procedures

Due to the heavy workloads that will be experienced during the term, certain procedures have been adopted to facilitate efforts. You will need to determine what word processing software you will have at your agency.

1 At the weekly organization meeting with the faculty advisor, each team will submit a:

Summary Progress Chart and Proposed Work Plan that includes what was accomplished during the week and specifying who did what. In addition, the summary must included the specific objectives for the following week.

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(i)

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Note for student authors:

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C.

* This page is required by WPI for all group projects. It identifies which student holds primary responsibility for each section of the report.

FORMAT FOR LETTER OF TRANSMITTAL

(Business letter format, written to agency liaison)

The Letter of Transmittal is a letter formally submitting the project report to the agency involved. A sample letter of transmittal is given below. The letter must contain the title of the report and include the following sentences:

“Copies of this report are being submitted simultaneously to (faculty advisors) for evaluation”.

“Upon faculty review, the original will be catalogued in the Gordon Library of Worcester Polytechnic Institute”.

The letter should close with a statement which thanks the liaison for his or her help.

(Sample Letter)

May 8, 2006

Mr. Louis C. Santone, Director
Office of Business and Legislative Issues
U. S. Department of Commerce
San Juan, Puerto Rico 009011

Dear Mr. Santone:

Enclosed is our report entitled The Impact of the Petro-chemical Industry of Unleaded Gasoline Production. It was written at the U. S. Department of Commerce during the period January 9 through May 8, 1999. Preliminary work was completed in Worcester, Massachusetts, prior to our arrival in Puerto Rico. Copies of this report are simultaneously being submitted to Professors Rissmiller and Addison for evaluation. Upon faculty review, the original copy of this report will be catalogued in the Gordon Library at Worcester Polytechnic Institute. We appreciate the time that you and Mr. David Glancy have devoted to us.

Sincerely,

Your Names

TITLE PAGE

Report Submitted to:

Name of WPI Faculty Advisor (s)

Puerto Rico, Project Center

By

(typed names) (signatures)

In Cooperation With

(names and titles of agency liaison)

(name of agency and division)

REPORT TITLE IN CAPITAL LETTERS

(Date)

This project report is submitted in partial fulfillment of the degree requirements of Worcester Polytechnic Institute. The views and opinions expressed herein are those of the authors and do not necessarily reflect the positions or opinions of (Agency Name) or Worcester Polytechnic Institute.

This report is the product of an education program, and is intended to serve as partial documentation for the evaluation of academic achievement. The report should not be construed as a working document by the reader.

ABSTRACT

The Abstract is of prime importance, since it is used by readers for guidance as to subject, treatment, and results. Often the quality of the Abstract will determine how much attention a decision-maker will devote to the rest of the report. Therefore, the Abstract must summarize the contents briefly and accurately, and be understandable independent of the text. It must not exceed 120 words in length and should contain no equations, figures or illustrations. The Abstract must contain the name of the organization with which you worked. It might begin, for example: “This report, prepared for he U. S. Department of Commerce□”. The Abstract must be single-spaced.

(this abstract, unless revised by the faculty advisors, will appear on your transcript.)

EXECUTIVE SUMMARY

You should be working on this section from the beginning. Like the Abstract, it should be understandable independent of the rest of the report. It should be able to stand by itself, and should be tightly written, concise and right to the point because this may be all that a top manager has time to read. In three pages, you should be able to condense the critical aspects of your report: objectives, methodologies uses, findings, analysis, conclusions and recommendations.

While the format for this section may vary from report to report, the following outline (all in very brief statements) may prove helpful:

Introduction
- Overall Goal and Specific Objectives
- Background
- Present Situation
- Projections
- Constraints
- Alternatives
- Comparison of Alternative
- Results (or Recommendations of Conclusions)

The Executive Summary should not be more 3 pages, unless there are special circumstances.

AUTHORSHIP PAGE

When a single, comprehensive written report is submitted for a project, each individual's contribution to the group effort must be clearly identified. The authorship page is either a simple list of individual chapters and their respective authors or is a statement in which each contributing group member is named as having carried out one or more specific tasks within the overall project effort.

ACKNOWLEDGEMENTS

Students often insert an acknowledgments page if they wish to specifically acknowledge the assistance or involvement of particular people in that project.

CONTENTS

This should be the last part of the report you do, because you cannot fill in the page numbers until you are finished with the report. However, you should have developed the Table of Contents early in the formulation of the report. It can serve as the basic outline of the paper.

TABLES

This functions as a table of contents for tables. Each table should be numbered and labeled and the proper page number indicated.

FIGURES

This functions as a table of contents for figures. Each figure should be appropriately numbered and labeled.

I. INTRODUCTION

The Introduction should contain a section on the significance of the subject matter. It usually runs about 4 to 5 pages in length and describes in general terms what the reader will read in the body of the report. The subject, goals, purposes, importance, method, audience, and anticipated form of the results for the project should all be touched upon. The Introduction must contain the following statement single-spaced:

This report was prepared by members of Worcester Polytechnic Institute Costa Rica Project Center. The relationship of the Center to the (name of organization) and the relevance of the topic to the (name of organization) are presented in Appendix A.

II. BACKGROUND AND LITERATURE REVIEW

Usually, a project topic will deal with several areas of knowledge. The literature review is a discussion of the theoretical background your topic and current and past research performed in the topic area. It provides the reader with the information necessary to understand your topic. It also leads the reader to understand how and why you formulated the problem in the way you did. Your project is intended to fill a gap in knowledge or add to the store of knowledge in the subject area. In some cases, when a project results in a product such as a video tape, for example, the literature review created the rationale for creating the product, which, in turn, will be used as a tool for actions that in the end will develop knowledge. If your literature review does not clearly provide a rationale for your project, you have not covered your field or you have not conceptualized the problem rationally. Your literature review from D-term should provide you with a good start. But you are expected to expand your own knowledge through new literature sources and to provide the reader with many more sources. Remember, people who have no knowledge in your project area may look at your report in Gordon Library. Your literature review should enable them to understand the basics in your topic area, the rationale of your methodology, the data you discuss, and your conclusions and recommendations. Remember to focus on points not on particular authors or sources, unless they are seminal works in the field that are so commonly recognized that the name of the author or work is immediately recognized.

Lunsford gives you examples of formats for citing sources and reporting references.

Citations should be embedded in the text by number and should be in last name of author and year of publication.

III. METHODOLOGY (or PROCEDURE)

This chapter, one of the most important in the report, must present your methods of analysis in a way that will allow the reader to replicate your efforts with a different sample. The Procedure is the general, conceptual flowchart of the problem-solving approach. You must provide a rationale for all procedures you elect. If, for example, you plan to conduct interviews, you must tell why you chose to conduct unstructured versus structured interviews. If you conducted focus groups, you must justify the choice and describe in detail how you did them. If you sent out questionnaires, why did you do so? Justify the type and size of your interview sample or your questionnaire sample.

Many projects will NOT require statistical analysis. However, if your project does require statistical analysis, why did you choose one statistical procedure over another? What were the difficulties in choosing your sample? How did you pretest your interview questions or your questionnaire? What were the time, money, geographic and human resource constraints? If you did not choose a random sample, why not? If you stratified your sample, why did you stratify it that way? Bailey, K. Methods of Social Research (2nd ed.), or Kidder, L. (1981) Selltiz, Wrightsman and Cook's Research Methods in Social Relations (4th ed.), New York: Holt, Rinehart & Winston are excellent resources and supplement each other.

Whenever possible and if appropriate for your topic, make sure that your methodology includes procedures that will allow you to qualify at least some of your results. For example, if you interviewed nine people using an open-ended interview schedule, you may still be able to tabulate your results in some way so that trends at least can be noted, reported in your finding in your findings and analysis chapter(s), and used for the basis of recommendations in your conclusion and recommendations chapter. Be complete and be specific.

In conducting your work, you may have had to modify the procedures you first intended to use. Explain what modifications you made and why. Hunches, even based on interviews, cannot be reported unless they are backed by data that has been analyzed systematically, even if not statistically. Systematic analysis requires organizing data according to criteria set up in advance. Usually systematic analysis means numbers are involved.

Some projects do not lend themselves to quantification. Talk to your advisors.

IV. RESULTS

Sometimes the writing of the report will be more logical when the authors integrate their reporting of findings with the analysis of the data. Before electing to do so, discuss your rationale with your advisors and get their permission. Many of the projects report findings that do not lend themselves to a statistical reporting style. Check with your advisor.

This chapter contains the presentation of the findings of your investigations. Start with the simplest material, but be specific. Your reporting and any arguments you make will be infinitely stronger if you use, whenever possible, tabulations of the findings. An example is, "Six out of twenty people interviewed wanted the airport to be transferred to private ownership". Proceed to more complicated reporting. "In spite of the fact that so few people were in favor of private ownership, the majority - 18 out of 20 - felt that private ownership would result in more efficient service for passengers". Not all projects will lend themselves to this sort of reporting.

Tables may be used when doing so supplements but does not simply duplicate the text. In the text, tell the reader what to look for in the table, but discuss only the highlights. Do not use a table to take the place of text. Each table should be numbered and have a name. Use APA style unless directed otherwise by your advisors.

Readers should be able to understand the table without explanation. Have others who are not in your team look at your tables and tell you what they mean. If the reader does not understand the table, revise it. Refer to the table by number: "High school students are more informed about the tasks of mechanical engineers than they are about those of electrical engineers (See Table II - 4)", for example; or "Table II - 4 shows the number of manufacturing plants that ...."

V. ANALYSIS OF RESULTS

The second part of your Procedure is the Analysis of your Results. You might be combining chapters, but the principles remain the same. The analysis focuses on the significance of patterns you see in your data. This chapter enables you to make recommendations and conclusions by focusing on the significance of patterns you discern in your chapter on Results. Hence, you will be able to say, "Seven out of the nine people indicated a preference for Classic Coca-Cola, indicating a trend". Or, "Since only four out of nine people believed the regulations should be changed, we cannot justify a recommendation to change the regulations. Nevertheless, our sample was so small that we cannot conclusively state that our findings constitute an adequate picture of the opinions of the total population from which the sample was drawn."

Remember that your samples will not be large enough to allow you to make statements about cause and effect. In order to do so, you would have had to use a classic experimental design in which you controlled for all variables except the ones you wished to test. You would, also, have had to use a large sample. Hence, while always referring back to your sample size for justification, you can talk only about trends and about their strength. Provide the reader with alternate explanations for the outcomes of your data. When the majority of adopters of solar equipment are between the ages of 30 and 50, it is not because older people do not like or believe in solar equipment as an energy saver but because older people have smaller access to media sources from which they can learn about solar equipment. Or they have lower incomes than the younger group, and therefore, cannot afford solar equipment, for example. Do not reject data you feel will not support your hypotheses or that will not please your agency. As researchers you have an obligation to report and analyze all relevant data. Disproving a theory or stating that the evidence is inconclusive is always as important as proving a theory.

VI. CONCLUSIONS AND RECOMMENDATIONS

Be sure that all your conclusions are consistent with and follow from an analysis of your data. Everything in this chapter must grow logically from what you have presented in earlier sections.

The chapter indicates what policy recommendations you are making. Recommendations must follow from conclusions, which follow from your analysis, which follow from your data, which follow from your methodology, which follow from your hypotheses, which follow from your discussion of background material including discussion of theories.

While recommendations grow logically from your investigation, they do not necessarily grow logically from the opinions of agency personnel nor from the political climate of an agency. Upon occasion, recommendations may be contrary to what an agency may wish to hear. This is a delicate situation and will require tact on your part. Discuss controversial findings and recommendations with your liaison and advisors, but be true to your data and your analysis.

VII. APPENDICES

You might have several appendices. Web pages or manuals are appendices, not findings.

APPENDIX A. - MISSION AND ORGANIZATION (of Agency)

This Appendix should include a general background statement on the history and development of the agency or organization, recent budgetary trends, how and by whom its policy is set, and a specific statement of current mission, policies, goals and objectives. The original letter from the agency, identifying the topic, should be included as an exhibit. The final section should describe how your project topic is related to the agency's mission, the position and responsibilities of the people working with you in the agency (show an organization chart), and how the project topic's results would affect components of the organization.

VIII. REFERENCES

Use the APA styles of citations unless directed by your advisors to use another model. You will find various web sites that will help you with examples. Also, use the APA Publications Guide for complete instructions.

Possible Guidelines for Final Report (check with your advisors)

1.

2.

3.

4.

Use Roman numerals for Chapter Numbers, capital letters for Appendices. All Chapter and Appendix titles should appear as follows:

Chapter 1. INTRODUCTION

Leave two spaces between headings and the first line of text.
When using subtitles, capitalize the first letter of each word and
begin two lines lower.

All Figures, Tables and Exhibits in a particular Chapter or Appendix should be identified and numbered by Chapter or Appendix. Use APA style unless directed otherwise by your advisors. Each must have a short descriptive title. For example:
Figure 1. Regional growth trends. Table 1. Energy consumption per capita. Page numbering for the final report should be consecutive.

MARGINS - very important to observe in order to be able to bind all materials in a readable way. (Beware of 8 x 10 1/2 paper)
From top of page and from right-hand side: 1 inch.
From bottom of page: 1 1/4 inch.
From left-hand side: 1 1/2 to 2 inches in order to leave room for binding. Nothing should appear outside these margins except the page number, which should be centered at the bottom of the page or be in the right bottom corner.

Citations – Unless otherwise directed by your advisors, footnotes should be embedded in the text in parentheses using the APA style. This relatively newly preferred form takes the place of the older standard form for footnoting by numbers and puts the author's last name, year of publication, and when a direct quote is used, page numbers in parentheses. The full citation can be found alphabetically listed in the back of the document in a section called References. For example, (Jones, 1988:63) means that Jones wrote the book or article, published it in 1988 and you are using a direct quote from page 63. When you are not using a direct quote, the citation would be as follows: (Jones, 1988) or (Jones, Smith, Brown et al., 1988) or (Jones in Brown, 1977) unless otherwise directed by your advisors. In all examples, you are using Jones' materials. In the second example, there were more than three authors to the book. In the last instance, Brown wrote the book and cited Jones or Jones had an article in Brown's book. In the References section, use standard citation forms for your full citations. O'Hare gives you a model. Do not call the References section "Endnotes" or "Footnotes" or 'Bibliography".

You may also have referred to other books and articles from which you got general ideas but from which you have not draw specific enough material that warrants footnotes. In this case, you will want to have an Additional Bibliography section in which you alphabetically list in full citation form those sources.

5. REFERENCES - The References come at the end of your project report and should include all books, journal articles, newspaper articles, etc. that you used in researching your topic. The References section is an alphabetical listing according to author of all your listed References. If in the text you referred to (Walters, 1967), you must give the full citation in the References.

Example:

Walters, A. (1967). The Growth of American Industry. New York: Harper & Row.

NOTE: Periods follow the author's name and the title of the work. For journals:

Grant, R., Higgins, C., and Irving, R. (Spring 1988). "Computerized Performance Monitors: Are They Costing You Customers?" Sloan Management Review. Vol. 29: 39-36.

(In this case, the article title is enclosed in quotation marks and the name of the magazine is underlined).

SUPPLEMENTARY GUIDELINES FOR FINAL REPORT

SINGE SPACE all sections of the final copies of the final report, except where you need to provide extra space for the sake of visual effect.

Be consistent in footnote style. The Procedures Manual includes comments on proper citation form and bibliographic form. If in doubt, consult APA Publications Guide.

COPIES OF THE REPORT TO BE SUBMITTED:

1) ONE CD COPY and one bound hard copy for Project Center files (S. Vernon-Gerstenfeld). The CD will be used to duplicate your report for any agencies who wish to have a copy. Make sure, therefore, it is not READ ONLY. That copy should be turned in at the same time that the copy for the Registrar is turned in. Give it directly to the receptionist in the IGSD Office or put it into Prof. VG's inbox in the IGSD Office.

2) ONE electronically submitted COPY: for the Registrar, which will eventually go into Gordon Library

3) ONE COPY: for each faculty advisor (find out if they want CDs).

4) ONE COPY: for organization liaison find out what format they want.

5) ONE CD COPY: For local coordinator, Mrs. Music – leave it with her at time of presentation

6) THREE OR FOUR COPIES: one for each member of the project team.

7) Others as requested by people you interview, for example.

SUPPLEMENTARY GUIDELINES FOR FIGURES

Graphs, charts, and other illustrations are normally referred to as Figures. Tables are referred to as tables.

If a figure takes up 1/2 page or more, give it its own page. Place it as closely as possible to the section of the text to which at refers.

If a figure is more than a page, include it as an appendix to the report.

If a figure is taken from or is a modification from an outside source, credit that source. Use APA style, unless directed otherwise by your advisors.

Source: Statistical Abstract of the U.S., 1966, p. 23

or

Adapted from Statistical Abstract of the U.S., 1966, p. 25.

This sort of reference appears below the figure. Do not use a figure if it is not referred to in your text.

Below is an example of a table:

Table 1. Fruit Grown in Massachusetts. (Given by town in percent of total yield of fruit in state.)

	Leominster	Cambridge	Springfield
Apples	10.0	0.05	6.0
Oranges	3.0	0.01	0.0
Plums	2.0	3.00	I7.0

Adapted from the U.S. Department of Agriculture, July 2008

SUPPLEMENTARY NOTE ON SPELLING
There is no excuse for not using a spellchecker, but a few words commonly misspelled and/or misused are: liaison, effect/affect, methodology/method, which/that - check dictionary for correct usage; it's/its—the first is contraction of it is, second is possessive pronoun of it.usage; it's/its—the first is contraction of it is, second is possessive pronoun of it.