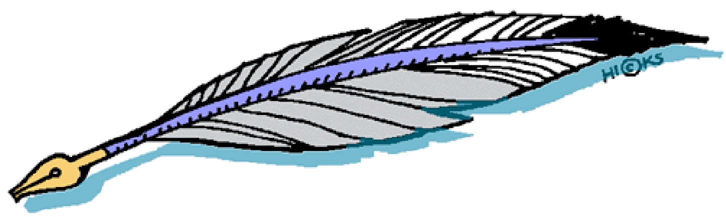
Planning and Organizing Proposals and Technical Reports



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Sponsored by Indiana DOT

Strategic Planning

Defining Subject, Purpose, Main Point, and Readers

Defining the subject, purpose, main point, and readers of your project may not seem like writing, but clarifying these items will help you write better and more efficiently.

Subject: The *Scope* of Your Project

The **subject** defines the scope of your project. Define the boundaries of your efforts—the kinds of issues your project addresses and the kinds of issues it does not.

Purpose

The **purpose** explains what project will do. Try writing your purpose in one sentence:

- "The purpose of this project is to..."
- "Our goal is to..."
- "The primary aim of this project is to..."

Main Point

Your **main point** states the overall aim of the project. For some projects, it helps to think of this as your "strong suit"—the aspect of your project that will be particularly appealing to your proposal's readers. It's what makes your work interesting, exciting, and important.

A main point can be articulated a variety of ways:

- "When this project is completed, ..."
- "We believe this project will..."

Readers

A well-developed and articulated understanding of your readers will help you craft your documents more effectively and help you write more efficiently. When considering your readers, keep the following guidelines in mind:

- Guideline 1: Readers are "raiders" for information.
- Guideline 2: Readers want only "need to know" information.
- Guideline 3: Readers prefer concise texts.
- Guideline 4: Readers prefer well-designed documents with graphics.

Profiling Readers

The readers of your document will have various needs, values, and expectations. So, it is a good idea to profile these readers to determine how to best address their needs.

Primary readers (Action-Takers)—The primary readers are the people to whom your document is addressed. They are usually *action takers* because the information you are providing them will allow them to do something or make a decision. Usually your document will have only one or two primary readers, or types of primary readers.

Secondary readers (Advisors)—The secondary readers are people who *advise* the primary readers. Usually, they are experts in the field, or they have special knowledge that the primary readers require to make a decision. They might be engineers, technicians, lawyers, scientists, doctors, accountants, and others to whom the primary readers will turn for advice.

Tertiary readers (Evaluators)—The tertiary readers include anyone else who may have an interest in your document's information. They are often *evaluators* of you, your team, or your company. These readers might include local reporters, lawyers, auditors, historians, politicians, community activists, environmentalists, or perhaps your company's competitors. Even if you never expect your document to fall into these readers' hands, you should keep them in mind to avoid saying anything that could put you or your company at risk.

Gatekeepers (Supervisors)—The gatekeepers are people who will need to look over your document before it is sent to the primary readers. Your most common gatekeeper is your immediate supervisor. In some cases, though, your company's lawyers, accountants, and others may need to sign off on the document before it is sent out.

Each of these four types of readers will look for different kinds of information. The primary readers are the most important, so their needs come first. Nevertheless, a well-written document also anticipates the needs of the secondary, tertiary, and gatekeeper readers.

Profiling Your Readers' Needs, Values, and Attitudes

Now that you have identified the readers of your document, you should develop profiles that describe their needs, values, and attitudes. Don't assume that your readers have the same needs, values, and attitudes as you do. Readers often have very different characteristics than the writers of a document.

Needs—What do your primary readers need to make a decision or take action? What do the secondary readers need if they are going to make positive recommendations to the primary readers? What are the tertiary and gatekeeper readers looking for in your document?

Values—What do your readers value most? Do they value efficiency and consistency? Do they value accuracy? Is profit a key concern? How much do they value environmental or social concerns?

Attitudes—What are your readers' attitudes toward you, your company, and the subject of your document? Are your readers excited, upset, wary, positive, hopeful, careful, concerned, skeptical, or gladdened by what you are telling them?

Readers	Needs	Values	Attitudes
Primary			
Secondary			
Tertiary			
Goalkeepers			

Setting Objectives and Identifying Outcomes

Once you have a basic idea of your subject, purpose, main point, and readers you can do some strategic planning to identify your project's objectives, outcomes, and deliverables.

Your objectives are the goals that you want your project to reach. You want to identify two kinds of objectives, a "top-rank objective" and "secondary objectives." Your top-rank objective is your primary goal that you most need the project to achieve. The secondary objectives are the goals you want to reach along the way.

1. **List out the project's objectives**—On your computer screen or a piece of paper, list out all of your project's objectives, large and small.
2. **Identify the "Top-Rank Objective"—**From your list, identify your most important objective. It will be similar or identical to the project purpose you identified earlier.
3. **Turn your objectives into "outcomes" and "deliverables."** Outcomes are the tangible results of your project. Deliverables are the products or services that you will deliver to the client during the project and when it is completed.

Objectives	Outcomes	Deliverables

Writing a Proposal

The *narrative* of a proposal is usually the full description of the project you are proposing. It is the heart of the proposal.

Here is a basic pattern that you can follow while writing the narrative. Of course, if the clients specify a pattern or form to follow, you should give them what they want. This pattern works well in situations where a pattern is not specified.

Introduction

- Subject
- Purpose
- Main Point
- Significance
- Background Information

Current Situation

- The Problem
- The Problem’s Causes
- The Problem’s Effects

Project Plan

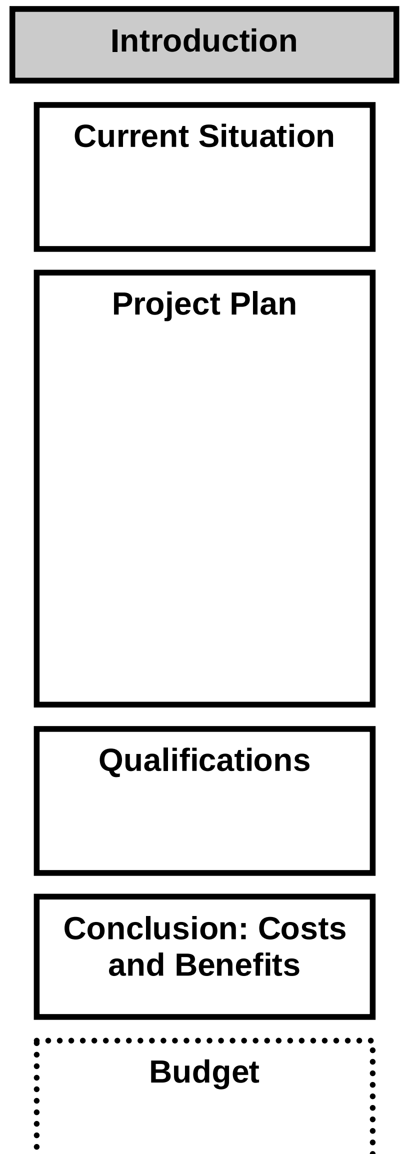
- Major and Minor Steps
- Deliverables

Qualifications

- Personnel
- Background of Organization
- Prior Experience

Conclusion: Costs and Benefits

- Purpose and Main Point
- Costs
- Benefits (Deliverables)
- Look to the Future
- Thank You
- Contact Information



Defining the Current Situation

Many proposal writers compose the introduction last, preferring to start with the body of the proposal’s narrative.

The first section after the introduction is often a description of the current situation. In this section, you will define the problem your project is trying to solve, explaining the problem’s causes and effects.

Guidelines for Understanding the Problem

While developing this section, you should keep three guidelines in mind:

- Guideline 1: Problems are the Effects of Causes
- Guideline 2: Ignored Problems Tend to Grow Worse
- Guideline 3: Blame Change, Not People

What Exactly is the Problem You Are Trying to Solve?

This might seem like an odd question to ask, but often people mistakenly try to address the symptoms of the problem and not the problem itself. Here are some questions to help you determine what exactly is the problem you are trying to solve:

- What changed to create this problem?
- Is this problem a symptom of a deeper problem?
- What aspects of the problem cannot be solved by you?
- Are you able to solve the whole problem or just a part of it?
- Can the problem be solved in stages?

What are the Problem’s Causes and Effects?

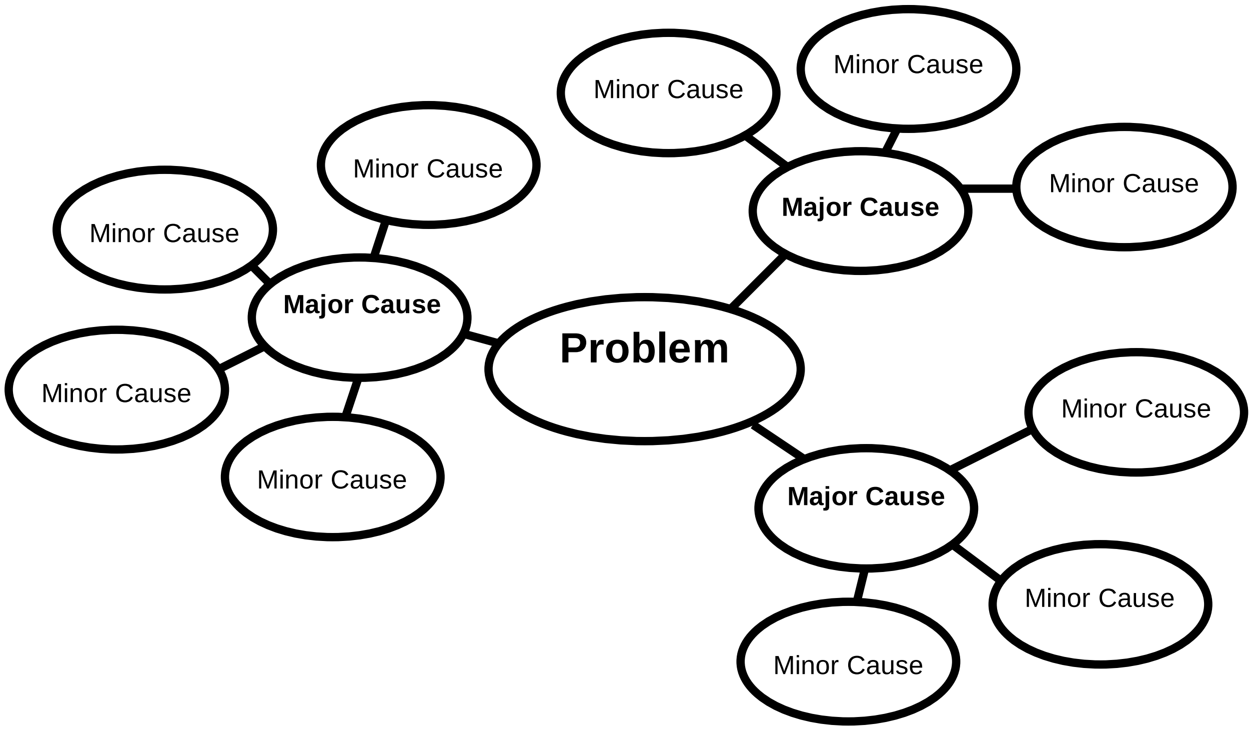
A helpful technique is to use “idea mapping” to identify the causes and effects of the problem. The next two figures demonstrate how these idea maps work.

> **Identifying Causes:** Put the problem you are trying to solve in the middle of a sheet of paper. Then, identify the 2-5 major causes of that problem. For each of these major causes, identify 2-5 minor causes that create the major cause. Keep mapping out until you have identified all the significant causes of the problem.

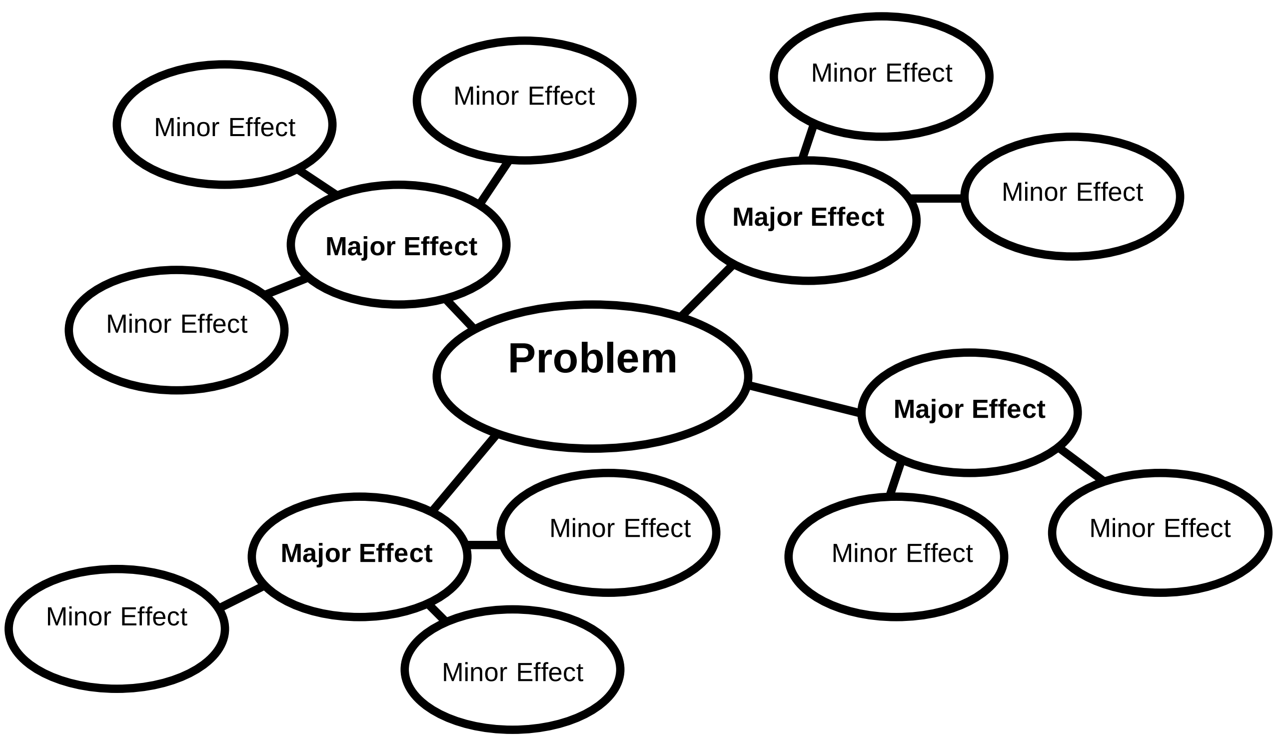
> **Identifying Effects:** Again, put the problem you are trying to solve in the middle of a sheet of paper. Identify the 2-5 major effects of the problem if nothing is done about it. Then, identify 2-5 minor effects for each of those major effects.

These diagrams should give you a solid overall sense of the problem, its causes, and its effects.

Idea Map of a Problem's Causes



Idea Map of a Problem's Effects



Drafting the Current Situation Section

The Current Situation section can be written in three different ways: Causal Approach, Effects Approach, and Narrative Approach.

Causal Approach	Effects Approach	Narrative Approach
Opening: Problem, Background, Significance	Opening: Problem, Causes, Significance	Opening: Set the Scene with Background Info
Major Cause Minor Causes	Major Effect Minor Effects	Complication: When the problem started
Major Cause Minor Causes	Major Effect Minor Effects	Evaluation: How people reacted to the problem
Major Cause Minor Causes	Major Effects Minor Effects	Resolution: How people have tried to solve it
Effects of doing nothing about the problem.	Effects of doing nothing about the problem	Effects of doing nothing about the problem

Each of the boxes might receive a paragraph or even a few paragraphs. In a very small proposal, each box might receive only a sentence or two.

Remember: Blame Change, Not People

Developing the Project Plan

This section contains the bulk of the proposal's narrative. In this section, you will discuss your project in depth, telling the readers *how* you will do it, *why* you will conduct it that way, and *what* the deliverables will be.

Setting Your Project's Objectives

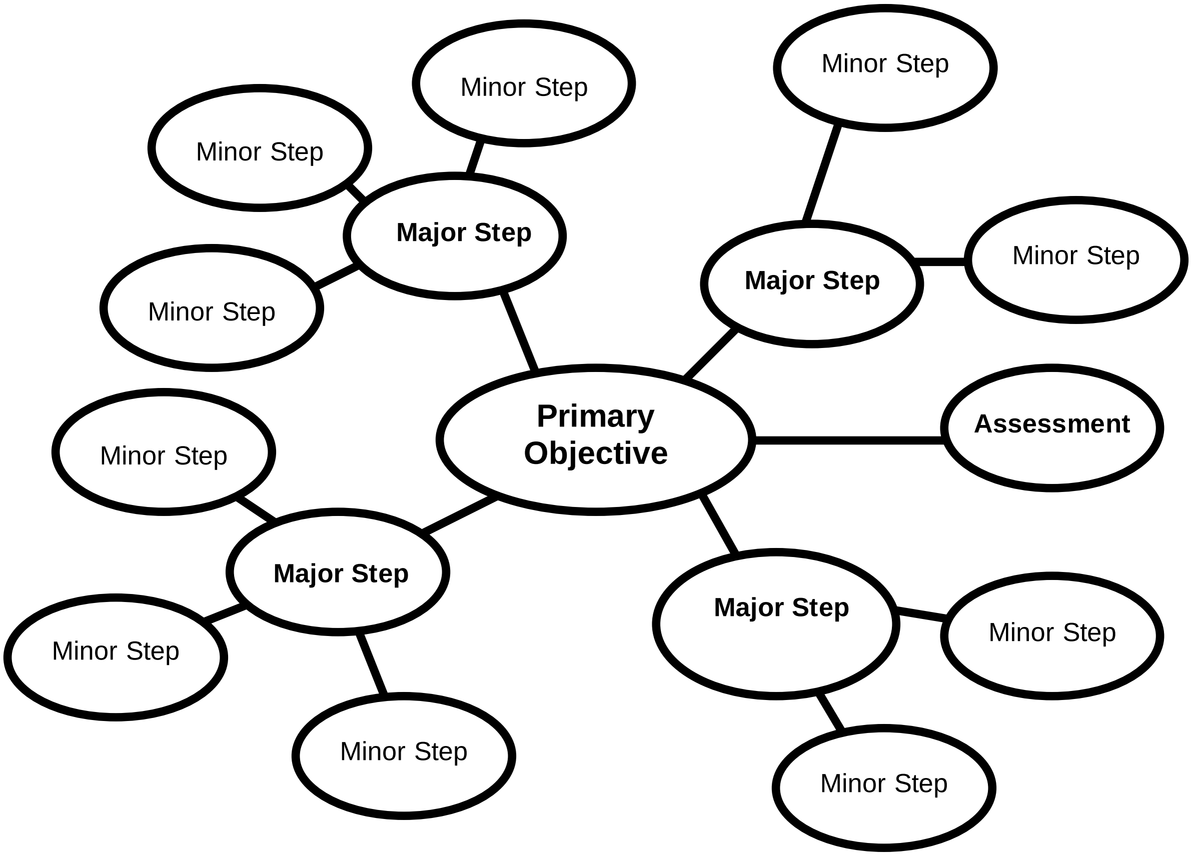
Begin project planning by listing out all the objectives your project should achieve, starting with your primary objective.

Primary Objective (TRO)
Secondary Objectives 1. 2. 3. 4.

The TRO is your *primary objective* for the project. Above all, you want to achieve this goal. The other objectives are *secondary objectives* that you will achieve as you are pursuing the primary objective.

What are the Major and Minor Steps Needed to Achieve the Primary Objective?

Let's use mapping again to sketch out your project plan. While mapping, you should ask the *how*-question to determine how you are going to achieve your primary objective. The worksheet on the next page should help you.



Answering the Why-Questions and Identifying Deliverables

Another helpful visual tool is a why box. In this box, put a major step in the top line. Then, fill in the minor steps on the left. On the right, answer the why-question for each minor step. Finally, write down at least one deliverable from this step. A deliverable is something the readers would be able to see, hold, feel, or experience.

Major Step:	
Minor Step:	Why?
Minor Step:	Why?
Minor Step:	Why?
Deliverables from Step:	

Major Step:	
Minor Step:	Why?
Minor Step:	Why?
Minor Step:	Why?
Deliverables from Step:	

Drafting the Project Plan Section

In most cases, the Project Plan section is written as a step-by-step description of the plan. Usually, the steps are described in the order they will by accomplished. The trick when writing this part of the proposal is to balance your hows and whys.

Project Plan

Opening: Primary Objective, List of Secondary Objectives, Overall Description of the Plan

Major Step
- Minor Step (How and Why)
- Minor Step (How and Why)
- Minor Step (How and Why)

Deliverables

Major Step
- Minor Step (How and Why)
- Minor Step (How and Why)
- Minor Step (How and Why)

Deliverables

Major Step
- Minor Step (How and Why)
- Minor Step (How and Why)
- Minor Step (How and Why)

Deliverables

Evaluation or Assessment

If your proposal's plan has more than 5 major steps, you might consider breaking your plan into 2-3 phases with 2-5 major steps apiece.

Describing Qualifications

The purpose of the Qualifications section is to show the readers that your organization is capable of handling the project.

Often, the qualifications of the organization are provided on a separate form. But, if the client does not specify where qualifications should be provided, you should add in a brief section that describes the background of your personnel and organization.

This section can have the following parts:

- **Description of Personnel**—brief biographies of the project managers, comments about staff and volunteers
- **Background on Organization**—history of organization, mission statement, facilities, equipment, non-profit status
- **Experience of Organization**—prior successful projects, current and previous projects, awards, or recognition

Qualifications of Organization

Opening: We are uniquely qualified to handle this project.

Description of Personnel
- Management Bios
- Staff

Background on Organization
- History and Mission
- Facilities and Equipment

Experience of Organization
- Prior Successful Projects
- Current and Past Projects
- Awards and Recognition

Closing (if needed): That’s why we are uniquely qualified to handle this project.

Conclusion: Explaining Costs and Benefits

You are on the home stretch now. It is time to conclude the proposal by summarizing the benefits of the project and showing the readers that the benefits of your project outweigh the costs.

Nothing new really happens in the conclusion except revealing the price tag. The conclusion is designed to offer the readers a cost/benefit analysis by summarizing the outcomes and deliverables of the project. This section can include—

- A clear signal that you are concluding
- Restatement of the purpose and main point of the project
- Restatement of its importance (in a positive way)
- Summary of the benefits to the clients and others
- A look to the future that describes the project's broader impacts
- Thank you to the readers
- Contact information so they can reach you.

Conclusion: Costs and Benefits

Signal that you are concluding, Restate the Project's Purpose and Main Point, State Costs

Summary of Benefits
- Deliverables
- Consequent Benefits

Look to the Future, Stress Importance of Project

Thank you, Contact Information

Here is not the place to be negative. At this point, you are not going to scare the readers into supporting your project. So, stay positive. Show them all the great benefits that follow their decision to say yes.

Keep your statement of the costs simple and straightforward. Don't apologize for the amount or sound defensive. Don't give some marketing spin like, "For the low, low cost of X, you can have..."

Writing an Introduction

Finally, you are ready to finish off the proposal by writing the introduction. The introduction needs to establish a context, or framework, for the content that follows in the body. A good introduction tends to make some or all of the following six moves:

Move 1: Define the Subject of the Project*

Explain the scope of the problem by defining the subject and explaining what issues will be addressed by the project and what issues won't be addressed.

Move 2: State the Purpose of the Project*

In one sentence, complete the following phrase: "The purpose of this project is to ..."

> Hint: Use verbs that reflect measurable results: *assess*, *compare*, *determine*, *evaluate*, *identify*, *develop*, *define*, *increase*, *decrease*, *improve*, and *reduce*.

Move 3: State your Main Point*

Tell the readers in brief the final outcome or result of the project. If your project is successful, what will be the lasting effect of your efforts?

Move 4: Offer Background Information on Subject

With a few key sources, offer some historical background information on the subject. Give the readers enough information to familiarize themselves with the subject and capture their curiosity.

But don't give the readers too much background information. You don't want your background information obscuring your statement of purpose and main point.

Move 5: Stress the Importance of the Subject

Briefly, tell the readers why your subject is important. What has changed recently that makes your subject suddenly relevant or worth pursuing? You can point to historical trends, social needs, or recent advances in the field. You can tell them how many people are affected each year by the problem you are trying to solve.

Move 6: Forecast the Organization of the Proposal

Briefly, describe the remainder of the proposal. You can use transitional words like "First, Second, Finally" to signal the larger sections in the proposal.

Writing Technical Reports

The purpose of a technical report is to present factual information gathered through research or an empirical study. A typical technical report defines a research question, describes a methodology for answering that question, presents findings, draws conclusions, and sometimes makes recommendations.

A report needs to answer some or all of the following kinds of questions:

- What research question was being studied?
- What research methods were used to answer the research question?
- What were the findings of the researchers?
- What conclusions can be drawn from those findings?
- What actions do the researchers recommend?

Reports can be written for external or internal purposes in a company or organization.

Defining a Research Question

Your research question is the fundamental question that your research is designed to answer. When starting your research, it helps to articulate exactly what question you are trying to answer:

Are motorists significantly distracted when they use mobile phones while driving?

How significantly are motorists distracted when they use mobile phones while driving?

Would the collection and reuse of salt-laden truck wash waters avoid environmental damage, and would it be economically viable?

Why have motorcycle fatalities steadily increased over the last decade?

You might then turn your research question into a hypothesis:

Motorists are significantly distracted when using their mobile phones while driving.

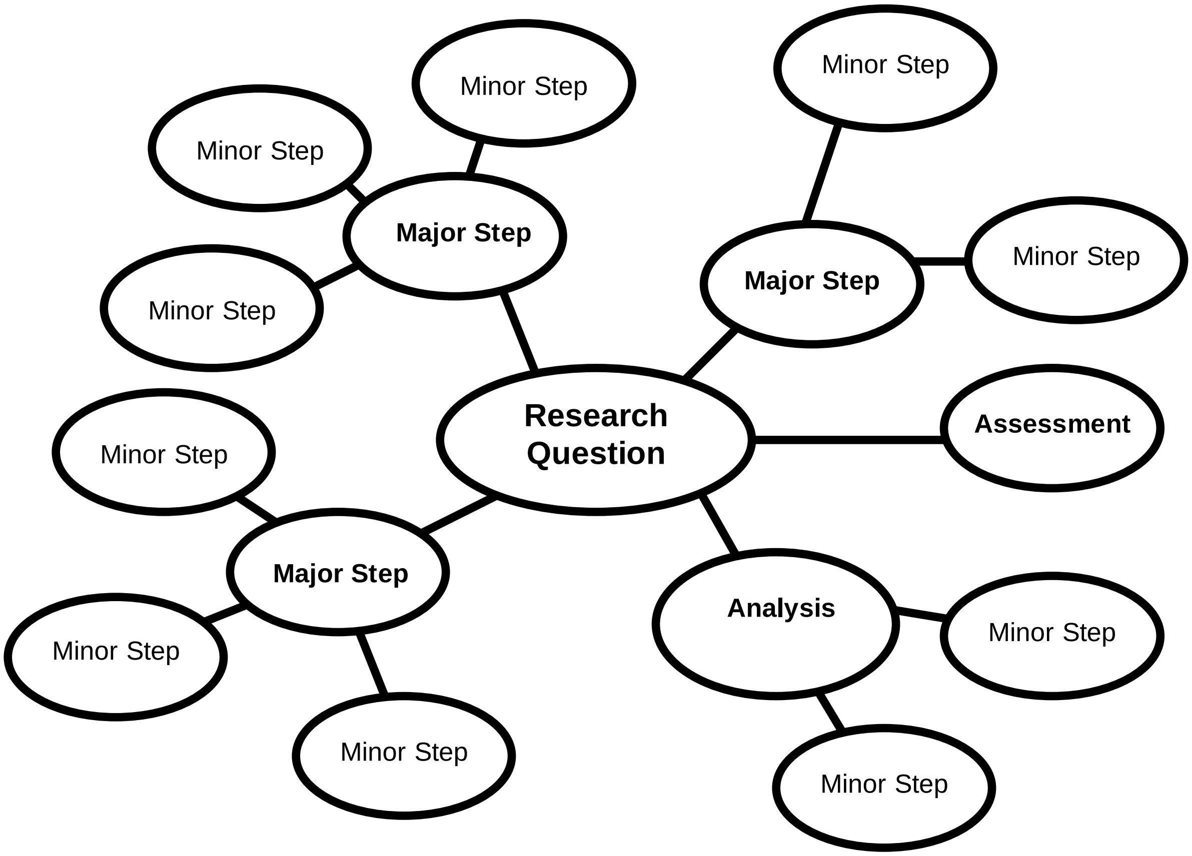
Motorists who use their mobile phones while driving are twice as likely to be in an accident.

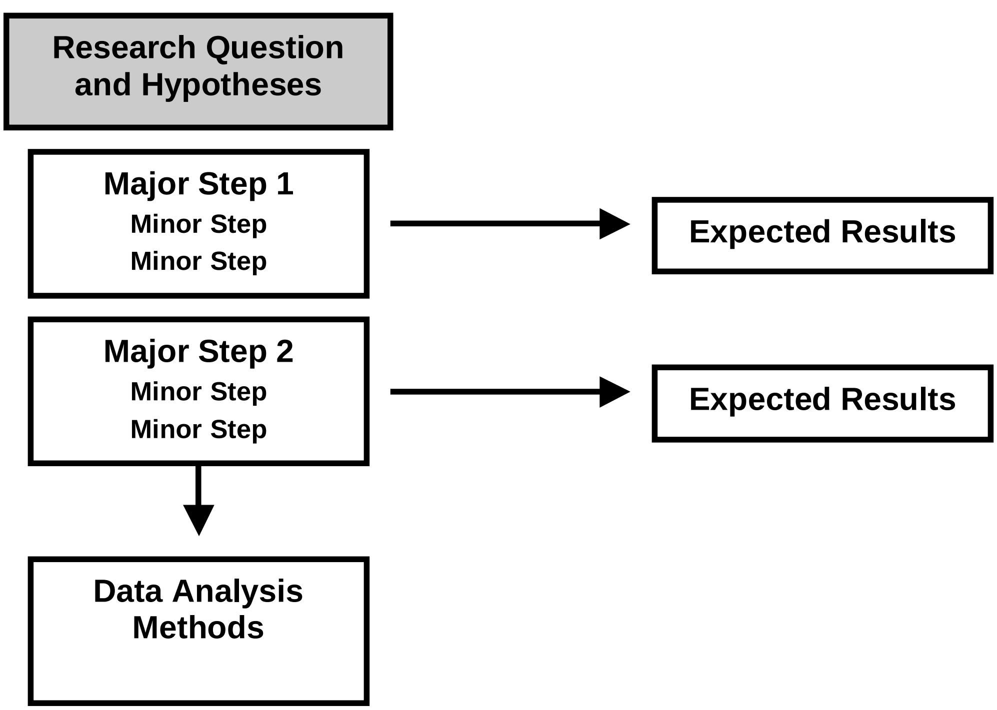
The collection and reuse of salt-laden wash waters would allow us to avoid environmental damage, such as loss of vegetation, increased concentrations of salt in soils, lakes, and rivers, and increased salt loadings to wastewater treatment plants.

Motorcycle fatalities have increased for four major reasons: a) people are riding more powerful bikes, b) Interstate highway speeds have been increased, c) riders are older on average, and d) fewer riders are wearing helmets.

Developing a Research Methodology

Developing a research methodology is very similar to developing a project plan in a proposal. It helps to put your research question in the center of a piece of paper or your computer screen and then describe the steps that will help you answer that question.





Basic Pattern for a Technical Report

A technical report typically follows the pattern described by the acronym IMRaD (Introduction, Methods, Results, and Discussion). Of course, companies and organizations will usually adjust this pattern to fit their own purposes, but it's helpful to commit the pattern to memory, so you know the generic organization of a report.

Introduction

- Subject
- Purpose
- Main Point
- Significance
- Background Information

Methods and Materials

- Overall Approach
- Materials
- Step-by-Step Research Methods
- Limitations of Methodology

Results

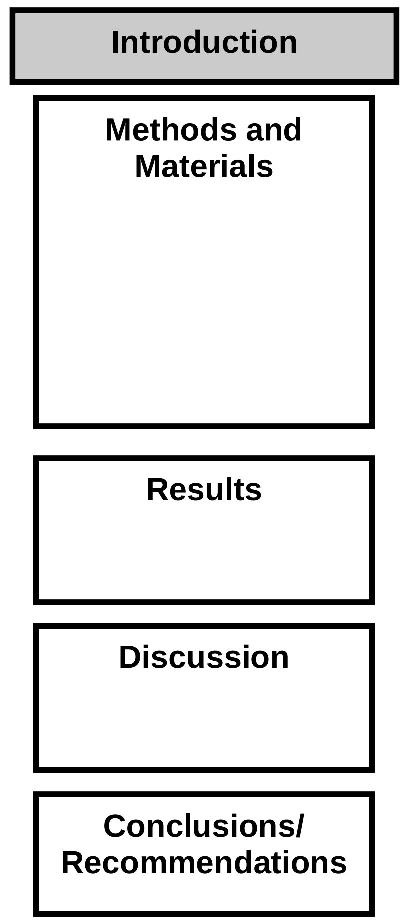
- 2-5 Major Findings

Discussion

- 2-5 Major Conclusions

Conclusions/Recommendations

- Purpose and Main Conclusion
- 2-5 Major Recommendations
- Look to the Future
- Contact Information



Writing An Introduction

The introduction of a technical report is similar to the one we discussed for a proposal. It usually includes up to six moves. These moves can be made in a variety of orders.

Title of Report

Move 1: Define the Subject of the Report
Move 2: State the Purpose of the Report
Move 3: State the Main Point (Conclusion)
Move 4: Stress the Importance of the Subject
Move 5: Offer Background Information
Move 6: Forecast the Organization of the Report

Describing Methods and Materials

The methodology section of a technical report describes step by step how you carried out your empirical study on the subject. The steps are described in the order they were completed.

Methods and Materials

Opening: Overall Description of the Methods

Materials and Conditions

Major Step
- Minor Step (How)
- Minor Step (How)

Major Step
- Minor Step (How)
- Minor Step (How)

Data Analysis Methods

Limitations of Methodology

Presenting Results and Discussing Conclusions

The Results and Discussion sections tend to work hand in hand. The purpose of the Results section is to present the findings as objectively as possible. The purpose of the Discussion section is to interpret those results and draw conclusions from them.

Results	Discussion
Opening: Overview of Results	Opening: Overall Statement about Conclusions
Finding 1 (Major Result) Data Examples Descriptive Details	First Conclusion Support and Reasoning Significance
Finding 2 (Major Result) Data Examples Descriptive Details	Second Conclusion Support and Reasoning Significance
Finding 3 (Major Result) Data Examples Descriptive Details	Third Conclusion Support and Reasoning Significance
⋮	⋮

To avoid overwhelming your readers, you might isolate 2-5 major findings from your research rather than give the readers all your findings. That way, the readers will be able to concentrate on your most significant results.

Then, in the Discussion section, discuss only your 2-5 major conclusions. Limiting your discussion in this way will help the readers concentrate on your most significant conclusions.

The major results and major conclusions don't need to correspond to each other. However, when they do, these two sections can often be merged into one "Results and Discussion" section.

Conclusion: Making Recommendations

The Conclusion/Recommendation section tends to be very brief in a technical report. Here, at the end of your report, you are going to make some recommendations based on the results of your research.

Recommendations

Signal that you are concluding, Restate the Project's Purpose and Main Point

- Conclusion/Recommendation 1
- Conclusion/Recommendation 2
- Conclusion/Recommendation 3
- Conclusion/Recommendation 4

Look to the Future, Offer Ideas for Further Research, Stress Importance of Taking Action (if needed)

Thank you, Contact Information

Writer-Centered Analysis Chart