Third Edition

Writing Reports



Quick, Effective Results Using the Pyramid Method

Ron S. Blicq A Lisa A. Moretto

Writing Reports to Get Results

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IEEE Professional Communication Society, Sponsor





A JOHN WILEY & SONS, INC., PUBLICATION

New York • Chichester • Weinheim • Brisbane • Singapore • Toronto

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For ordering and customer service, call 1-800-CALL-WILEY.

Library of Congress Cataloging-in-Publication Data is available.

ISBN 0-471-14342-1

Printed in the United States of America.

10 9 8 7 6 5 4 3 2

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Preface

We have prepared these guidelines as an easy-to-consult reference handbook, designed especially for people who work in a business or technical environment and have to write reports. Its tailor-made writing plans can help you, as a manager, business administrator, researcher, supervisor, engineer, scientist, technician, computer specialist, or student, start writing more readily and continue writing more easily.

The writing plans cover the three general categories of reports written in business, government, and industry. Short reports include informal incident, field trip, job progress, project completion, and inspection reports; semiformal reports comprise laboratory reports and medium-length investigation and evaluation reports; and formal reports cover analytical and feasibility studies, as well as major investigations. There are also writing plans for three types of proposals, from single-page suggestions to full-length formal presentations.

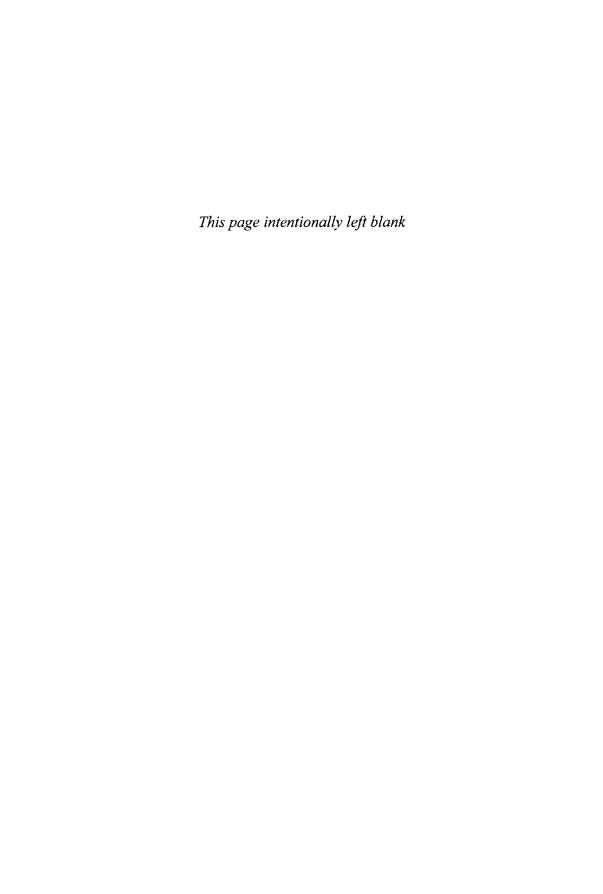
All of the writing plans are based on a unique modular method of report organization called the pyramid method, which is described in Chapter 2. This chapter will help you identify the most important information you have to convey and focus your readers' attention on it. The pyramid method then groups the remaining information into compartments that develop your case logically and coherently.

For each type of report, the guidelines provide

- an individual writing plan,
- detailed instructions for using the writing plan,
- a model report (in some cases there are two examples), and
- comments on how the writer has used the suggested writing plan to shape his or her report.

A writing techniques section at the end of the handbook provides useful suggestions for "sprucing up" the appearance of your reports and getting better mileage from your words. It also describes how to construct a list of references or a bibliography; how to present numbers, abbreviations, and metric (SI) symbols; how to prepare illustrations for insertion within a report's narrative; and how to work collaboratively as one of several members engaged in writing a comprehensive report or proposal.

RB and LM



PART 1

A Practical Approach to Report Writing

Chapter 1. How to Use These Guidelines

Chapter 2. The Report Writer's Pyramid

How to Use These Guidelines

There are two ways you can use these guidelines: you can read them right through from start to finish, or you can read only the parts that apply to the kind of report writing you do. If you are a busy person, you are more likely to read selectively.

If you choose to dip into sections of the book, we recommend you follow this reading plan:

- 1. Be sure to read Chapter 2 first. This is a particularly important chapter because it describes the basic structure on which all the reports in Chapters 3 through 8 are modelled.
- 2. From the Table of Contents identify which report types listed in Parts 2, 3, and 4 (Chapters 3 through 8) you write now. Also identify any report types you think you might have to write over the next 12 months.
- 3. Turn to each of the reports you have identified and then:
 - Read the introductory remarks and recommended writing plan.
 - Read the model report. You will find most model reports are printed on right-hand pages, and most comments about the reports are printed on the facing left-hand pages. We recommend you first read the model report right through once and resist the temptation to glance across to the cross-referenced comments on the facing page(s). This will give you a better "feel" for the report.
 - Read the comments on the facing page(s) and cross-reference them to the report.

Note: For some reports you write, you will find an exact writing plan to use and a comparable model to follow in the guidelines. For others, you may have to search

for a writing plan that approximates your needs, and then adapt it to fit your particular situation.

- 4. Read Part 5 (Chapters 9 through 15). These chapters contain "how to" suggestions on report shape, appearance, language, and writing style, and so act as a reference section which you can consult at any time.
- 5. When you have the time or the need, turn to the other reports and review the pyramids and the examples.

The individual writing plans illustrated here have been tested and used thousands of times and are known to work well. But bear in mind that they are only *suggestions* for organizing each report. They are not hard-and-fast rules, and you can alter them to suit both your needs and those of your audience—the person or people for whom you write each report.

The Report Writer's Pyramid

If we were to ask you what you find most difficult about report writing, would one of these be your answer?

- Getting started.
- Organizing the information: arranging it in the proper order.
- The writing: getting the right words down on paper the first time.

We can ask the same question of any group of business or technical report writers and always hear the same answers. And often those who say getting started also mention one of the other answers.

The ideas presented in this book will help remove some of the drudgery from report writing. They will show you how to get started, organize your thoughts, and write simply and easily. This chapter provides you with basic guidelines. Subsequent chapters demonstrate how you can apply the guidelines to various situations.

Getting Started

Dave Kowalchuk has spent two weeks examining his company's methods for ordering, receiving, storing, and issuing parts for the electronic equipment the company services. He has discovered that the inventory control system is inefficient, and has investigated alternative methods and devised a better system. Now he is ready to write a report describing his findings and suggestions.

But Dave is having trouble getting started. When he sits down to write, he just can't seem to find the right words. He writes a few sentences, and sometimes several paragraphs, yet each time he discards them. He is frustrated because he is unable to bring his message into focus.

Dave's problem is not unusual. It stems from a simple omission: he has neglected to give sufficient thought either to his reader or to the message he has to convey. He needs to make three critical decisions *before* he picks up his pen or places his fingers on the computer keyboard. He should ask himself:

- 1. Who is my reader?
- 2. What do I most want to tell that reader?
- 3. What will the reader do with this information?

Identifying the Reader

If you are writing a memo report to your manager, you will know immediately to whom you are writing (although you may have to give some thought to other possible readers, if your manager is likely to circulate your memo). But if your report will have a wider readership—as Dave's may well have—then you must decide who is to be your primary reader and write for that particular person. Trying to write for a broad range of readers can be as difficult as trying to write with no particular reader in mind. In both cases you will have no focal point for your message. And without a properly defined focal point your message may be fuzzy.

How can you identify the primary reader? It is the person (or people) who will probably use or act upon the information you provide. You need not know the person by name, although it is useful if you do because then you will have a precise focal point. But you should at least know the type of person who will use your information and be able to identify the position he or she holds.

Yet simply knowing your reader is not enough. You need to carry the identification process one step further by answering four more questions:

QUESTION 1: What does the reader want, expect, or need to hear from me? You have to decide whether your reader will want a simple statement of facts or a detailed explanation of circumstances and events. You also have to consider whether the reader needs to know how certain facts were derived.

QUESTION 2: How much does the reader know already?

The answer to this question will provide you with a starting point for your report, since there is no need to repeat information the reader already knows. (But note that your answer may also be influenced by the answer to question 4.)

QUESTION 3: What effect do I want my report to have on the reader?

You have to decide whether the purpose of your report is to inform or to persuade. In an informative report you simply relate the necessary facts, and then you stop. In a persuasive report you have to convince the reader to act or react, which can mean simply approving a plan you propose, or ordering materials or equipment on your behalf, or authorizing a change in policies and procedures.

QUESTION 4: Are other people likely to read my report?

You have to consider the route your report takes before and after it reaches your reader, and to whom you may send copies. If the report will pass through other people's hands, then you must consider how much additional information you will have to insert to satisfy their curiosity. (At the same time you must not let your desire to satisfy additional readers deflect you from focusing on the primary reader's needs and expectations.)

In the situation described earlier, Dave Kowalchuk decides his primary reader is Maria Pavanno, who is Manager of Purchasing and Supply. He also recognizes that Maria may circulate his report to other managers and particularly to the Vice President of the division. He also needs to consider these secondary readers.

Identifying the Message

Now that Dave has his primary and secondary readers clearly in mind, he has to make a second decision. This time he has to answer a single question:

What do I most want to tell my primary reader?

Dave must examine the results of his investigation and decide which results will be most useful to Maria Pavanno. His aim should be to find key information that will spark Maria's interest so she will want to know more. For example, would she *most* want to know that:

- 1. The company's supply system is out of date and inefficient?
- 2. Other businesses Dave has investigated have better supply systems?
- 3. There are several ways the company's supply system can be improved?
- 4. Improvements to the company's supply system will increase efficiency?
- 5. Changes to the supply system will save time and money?

Although all these points are valid, Dave reasons that Maria will be most interested in knowing how to save the department time and money. As increased efficiency is the key to these savings, he decides to combine points 4 and 5 into a single message. So he writes

Improvements to our inventory control system will increase efficiency and save time and money.

This becomes his Main Message—the information he most wants to convey to his reader. Maria Pavanno.

When you have identified both your primary reader and your Main Message, write them in bold letters on a separate sheet of paper and keep the sheet in front of you as you write. This will give you a constant reminder that you are writing for a particular person and have a specific purpose in mind.

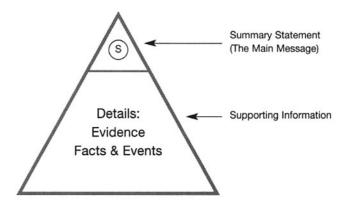
Using the Pyramid Method

If you were to ask any group of managers what single piece of advice they would give new report writers, the two replies you would hear more than any others are:

- Tell me right away what I most need to know.
- Draw my attention to the results. Don't bury them so I have to hunt for them.

You can meet both of these requirements if you use the pyramid method to organize your reports. The pyramid method emphasizes the most important information by bringing it right up front, where it will be seen.

Figure 2–1 The report writer's pyramid.



As its name implies, the pyramid method suggests that you organize your reports in pyramid form, as shown in Figure 2–1. The essential information (what the reader most needs to know) sits at the top of the pyramid, where it is supported by a strong base of facts and details.

This concept is not new. Journalists (whom we often call "reporters") have used it for decades, and in recent years experienced business and technical report writers have adopted it, because it offers them the most efficient way to communicate information.

The pyramid is used as the basic framework for organizing every type of report, although the compartments may be relabelled and expanded to suit varying situations. When you have become accustomed to using it, you will find that you automatically think "pyramid-style" every time you write.

Focusing the Message

Many beginning report writers find the pyramid method difficult to accept, because it seems to contradict what they have previously been taught. Throughout high school and into college or university they have probably been told to write using the "climactic" method. Writing climactically means developing a topic carefully, logically, and sequentially, so that the narrative leads systematically up to the main point. It is the ideal way to write an essay, short story, or mystery novel, in which the main point needs to be at the end of the piece of writing. But it does not meet the needs of business and industry, where readers want to find the Main Message at the beginning.

The pyramid method suggests that you identify the most important information in the Details section and then summarize it into a short Summary Statement, which you place at the front or top of your report. In this way you focus your readers' attention onto your Main Message.

If you have been accustomed to writing climactically, you may feel uncomfortable jumping straight into the Main Message without first gently leading up to it. To start, you can borrow a technique used by newspaper reporters.

Turn to the front page of your daily newspaper and read the first few paragraphs of each article. You will find that every article is structured the same way:

- 1. It has a headline, which is not really part of the article. (Normally headlines are written by editors, not the newspaper reporters who write the articles.)
- 2. Its opening paragraph very briefly gives you the main information—usually what has happened and, sometimes, the outcome. For example:

Maps distributed in Washington yesterday show that the 77.5-ton Monitor unmanned space station will pass directly over Buffalo, New York on three occasions during its final day in orbit. It is expected to re-enter the earth's atmosphere on Wednesday July 11, plus or minus one day.

This opening paragraph is the article's Main Message and is equivalent to the Summary Statement at the front of a short report. It is intended to grab the readers' attention and create enough interest to keep them reading.

3. Its remaining paragraphs expand the Main Message by providing details such as facts, events, names of places and people, dates and times, and statements by persons the reporter has interviewed. It is equivalent to the Details section of a report.

What you cannot see at the front of each article are six "hidden words," which newspaper reporters were taught to use every time they start writing. First they wrote

I want to tell you that ...

Then they finished the sentence with their Main Message (what they most wanted to tell their readers). For example:

I want to tell you that ... there are larvae in the city's water supply, but local authorities say they don't pose a threat to public health.

Finally, they removed the six words "I want to tell you that ..." (which is why they are known as hidden words), so that the remaining words became the article's opening sentence.

You can see how this is done if we restore the six hidden words to the front of the opening paragraph describing the orbiting space station:

I want to tell you that ... maps distributed in Washington yesterday show that the 77.5-ton Monitor unmanned space station will pass directly over Buffalo, New York on three occasions during its final day in orbit.

Similarly, you can insert the six hidden words before the opening sentence of every article on the front page of your daily newspaper. The six hidden words force you to identify who you are writing to, what you want to tell that person (or these people), and to make the message come directly from you.

You can use the hidden words technique to help you start every report you write. Just follow these steps:

- 1. Identify your reader.
- 2. Decide what you most want to tell your reader.
- 3. Write down the six words I want to tell you that ...
- 4. Complete the sentence by writing what you decided to tell your reader in step 2. This is your Main Message.
- 5. Delete the six hidden words of step 3.

Here is how Dave Kowalchuk used these five steps to start his report on the company's supply system:

- 1. He identified his primary reader as Maria Pavanno, Manager of Purchasing and Supply.
- 2. He decided he most wanted to tell Maria that the department can save time and money by improving its inventory control system.
- 3. He wrote: "I want to tell you that ..."
- 4. He finished the sentence by writing: "... improvements to our inventory control system will increase efficiency and save time and money."
- 5. He deleted the six words he had written in step 3.

Step 4 became the opening sentence in Dave's report; that is, he used it as his Summary Statement (or Main Message). But when Dave examined the words more closely he realized that, although what he had written was accurate, as an opening statement it was too abrupt. He remembered that a Summary Statement must not only inform but also create interest and encourage the reader to continue reading. So he rearranged his information and inserted additional words to soften the abruptness. At the same time he took great care not to lose sight of his original message. After several attempts he wrote

(I want to tell you that ...) My examination of our inventory control system shows we can increase departmental efficiency, save time, and reduce costs by improving our methods for ordering, storing, and issuing stock.

We suggest that you, like Dave Kowalchuk, use the "hidden words" method every time you have to write a report. It will help you start more easily and ensure that you focus your readers' attention immediately onto the most important information.

Developing the Details

Because the Summary Statement of a report brings readers face to face with important, sometimes critical, and occasionally controversial information, it immediately triggers questions in their minds. Your responsibility is to anticipate these questions and answer them as quickly and efficiently as you can. You do this in the Details section, which amplifies and provides supportive evidence for the main message in your Summary Statement.

There are six questions a reader may ask: Who?, Why?, Where?, When?, What?, and How? (See Figure 2-2.) But first you have to identify which of these questions your readers would most likely ask. Say to yourself:

If I were the intended reader, which questions would I ask after I had read **only** the Summary Statement?

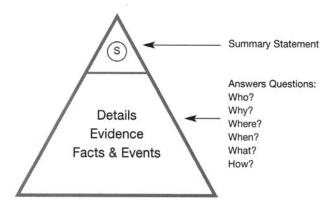
(When answering this question, remember that your readers will not know the subject nearly as well as you do.)

Dave Kowalchuk, for example, might say to himself: "What questions will Maria Pavanno be likely to ask immediately after she has read my Summary Statement?" (The Summary Statement is in bold type above) Dave would probably come up with the following questions:

- Why (is it necessary to increase efficiency)?
- How (can we improve efficiency)?
- What (will be the effect or result of improved efficiency)?

If he thinks that Maria wants a very detailed report, Dave might also ask these questions:

Figure 2–2 The base of the report writer's pyramid answers readers' questions.



- When (should the improvements be implemented)?
- Who (will be affected by them)?
- How (much will it cost)?

He would omit the question where? because for this report it does not need to be answered.

Because Dave recognizes that Maria may circulate his report to other managers or to the vice president of the division, he uses a language that is appropriate to these secondary audiences. For example, he includes information to help managers understand the situation and make decisions but leaves out many of the technical details and findings. They would be used to justify or prove his recommendation and could be presented as attachments.

Now let's examine how another writer—Bev Hubka—used these questions to develop the Details section of a short inspection report. Recently, Bev drove to a warehouse to determine the condition of some new equipment damaged in a traffic accident and found that most of it was beyond repair. In the Summary Statement of the report Bev told her readers what they most needed to know:

Main Message: (1 want to tell you that ...) Our inspection shows that only three of the 16 computers in Calvin Computer Systems' shipment No. 367 can be repaired. The remainder will have to be scrapped.

To assemble facts for the Details section, Bev jotted down notes in answer to the six questions her readers might ask after they had read her Summary Statement:

Who (was involved)?

Fran Derwood and Bev Hubka

Why (were you involved)?

We had to inspect damaged computers.

(Authority: Arlington Insurance Corporation)

Where (did you go)?

To Hillsborough Storage warehouse

When (did this happen)?

On June 18

What (did you find out)?

Three repairable computers, 13 damaged beyond repair

How (were they damaged)?

In a semitrailer involved in a highway accident

Finally, Bev took these bare facts and shaped and expanded them into two Detail paragraphs.

Details:

What?

Why? We were requested by Arlington Insurance Corporation to examine the condition of 16 CANFRED computers manufactured by Calvin How? Computer Systems of Austin, Texas. They were damaged when the semitrailer in which they were shipped overturned and burned on a Curve near Jackson, Mississippi, on June 11. Fran Derwood and I drove Where? to Jackson on June 18, where we were met by Arlington Insurance When? Corporation representative Kevin Cairns. He escorted us to the

Hillsborough Storage warehouse.

We found that the fire that resulted from the accident has irreparably damaged 13 computers. Three others suffered smoke damage but seem to be electronically sound. They carry serial numbers 106287, 106291, and 106294. We estimate that these computers will cost an average of \$350.00 each to repair, for a total repair cost of \$1050.00.

The pyramid method can help you organize random bits of information, just as it has helped Bev Hubka. And, because it helps you eliminate unessential information, it will also shorten the reports you write. But it is not meant to be a rigid method for organizing details. The six basic questions are intended solely as a guide, and should be used flexibly. For example:

- The questions do not have to be answered in any particular order. You can arrange
 the answers in any sequence you like, balancing your personal preference against the
 reader's needs and the most suitable way to present your information.
- Only the appropriate questions need to be answered (i.e. the questions that are pertinent to each particular reporting situation).
- The first four questions in the list (who?, why?, where?, and when?) require fairly straightforward answers. The last two questions (what? and how?) can have widely varying answers, depending on the event or situation you are reporting. Here you explain what has happened, how it happened, what needs to be done, and possibly