

CHAPTER 1

Why Technical People Needn't Fear Writing

Exercise 1.1: Understanding the Role of Writing in the Technical Workplace

[This is a self-guided class discussion exercise that does not require an answer key]

Exercise 1.2: Brainstorming and Sequencing Document Content

The following are brainstorming ideas set down in random order. The information relates to the scenario in Chapter 1 of the production engineer for JP Engineering visiting Pinnacle Manufacturing to help sort out problems with the production line.

The intention is that students, singly, in pairs or in groups, sequence the information according to the principles described in the chapter, that is, either as a one-way conversation with the reader or as a story told to the reader. Either method should yield the same sequencing (more or less), so instructors can focus on the method they prefer.

The exercise can either be printed out and cut up for the students to have physical pieces of paper to push around their desks and arrange in proper sequence. Or, the exercise can be copied and pasted into a Word file, for student to re-arrange the paragraphs on screen.

The pedagogic device of the conversation or story can be used to stimulate conversation, to make the ideas less abstract. The answer keys can be used to for classroom discussion.

Exercise 1.2.1: Scenario A

In this scenario, you are the head of production at Pinnacle Manufacturing announcing to your department heads that Johnson Production Engineering has been selected to investigate your production line problems. Your purpose is to get everyone to meet the consultant on Monday morning at 09:00 and to get them to bring the documentation for which the consultant has asked. Hint: begin with the main idea or purpose of the document in brief. Then elaborate.

We have chosen a production consultant.
Meeting with their representative at 0900 Monday morning in my office.
Brian would like some documentation as well to familiarize himself with our operations.
We have chosen Johnson Production Engineering of Markham, ON.
My extension is 214.
Brian Lee is the consultant who will be working with us.
Call me if you have questions or ideas.
Brian arrives on Monday morning and will stay for three days.
Brian needs to interview the production heads, observe procedures, and speak with workers.
Johnson PE has experience in the automotive industry: assembly and parts production.
Looking forward to getting started.

Brian needs ISO documentation for purchasing procedures.
Brian would like ISO documentation for production processes.
Johnson PE is perfectly positioned to help us with our production of smart meters.
Brian is interested in org charts from the production departments.
Brian would like to see the production line schematics.
We have been looking for some time for someone to help identify and correct problems on our production line.
Brian requires production metrics.

Exercise 1.2.1: Scenario A: Answer Key (notes in proper order)

We have chosen a production consultant.
Meeting with their representative at 0900 Monday morning in my office.
We have been looking for some time for someone to help identify and correct problems on our production line.
We have chosen Johnson Production Engineering of Markham, ON.
Johnson PE has experience in the automotive industry: assembly and parts production.
Perfect to help us with our production of smart meters.
Brian Lee is the consultant who will be working with us.
Brian arrives on Monday morning and will stay for three days.
Brian needs to interview the production heads, observe procedures, and speak with workers.
Brian would like some documentation as well to familiarize himself with our operations:
-ISO documentation for purchasing procedures
-ISO documentation for production processes
-org charts from the production departments
-production line schematics
-production metrics.
Looking forward to getting started.
Call me if you have questions or ideas.
My extension is 214.

Exercise 1.2.2: Scenario B

In this scenario, you are the consultant that Johnson Production Engineering has sent to Pinnacle Manufacturing. You're waiting to get on the plane back to your office in Markham, Ont., and are composing an email of your initial impression of the project for your supervisor, Jane, who has asked to be kept in the loop. But your real purpose is to ask for advice about a personnel issue at Pinnacle. Their production and warehouse managers have a personal conflict that is affecting productivity. You're not trained in conflict resolution, so you need to ask Jane for advice. Lead with the main idea. Then sort the rest of your notes into proper document sequence.

Hi Jane,

Pinnacle Manufacturing has a personnel issue. I need advice.

So far I've taken a look at their documentation and observed their processes.

Please let me know so I can get started as soon as I land.

You assigned me to the project on Sept. 5.

There is a personnel issue as well as issues with the set-up of the production line.

The personal issue is affecting productivity, independent of the production set-up.

I'm already seeing where some processes could be improved. I will look into things further and should be able to come up with some substantial recommendations.

Can someone on staff, perhaps from HR, advise me?

I visited their facility Sept. 12 through 15.

Pinnacle hired us to find out why their productivity is below industry average.

Have never come across this issue before.

In speaking with the supervisors of the production floor and the warehouse, I learned that these two people don't like one another.

Exercise 1.2.2: Scenario B Answer Key (notes in proper order)

Hi Jane,

Pinnacle Manufacturing has a personnel issue. I need advice.

Pinnacle hired us to find out why their productivity is below industry average.

You assigned me to the project on Sept. 5.

I visited their facility Sept. 12 through 15.

So far I've taken a look at their documentation and observed their processes.

I'm already seeing where some processes could be improved. Will look into things further and should be able to come up with some substantial recommendations.

There is a personnel issue as well as issues with the set-up of the production line.

In speaking with the supervisors of the production floor and the warehouse, I learned that

two production staff members don't like one another.
This personal issue is affecting productivity, independent of the production setup.
Have never come across this issue before.
Can someone on staff, perhaps from HR, advise me?
Please let me know so I can get started as soon as I land.

Exercise 1.2.3: Scenario C

In this scenario, you are still the consultant from Johnson Production Engineering who has been assigned to resolve the production problems at Pinnacle Manufacturing. This is the follow-up to your email to Jane in Exercise 1.2.2. Jane has put you in touch with someone from HR who, after you explained the situation at Pinnacle, suggested that you find a procedural solution—that is, a way to get the work done that limits contact between the supervisors. In this email, you will do so.

Pleasure to meet you and your staff. I'm looking forward to working on this project, but have a preliminary suggestion that I can make already.
Someone should be assigned to provide 50 pieces of precut sheet metal to the cutting press every hour.
The production line experiences gaps because the cutting press at the start of the line occasionally runs out of materials.
Jim Malhotra, production floor supervisor, blames the warehouse for not supplying materials on time.
I should have my report ready in two weeks. Please let me know if you have questions: 1-905-554-1234.
These gaps are costly but easy to prevent.
Frank Chan, warehouse supervisor, says production should request materials when they run low. Says his staff is too busy and don't have a good line of sight to the cutting press.
You should impose a procedural solution.
Your target is to produce 50 smart meters per hour.
Jim and Frank cannot agree and neither has authority over the other.

Exercise 1.2.3: Scenario C: Answer Key (notes in proper order)

Pleasure to meet you and your staff.
Have a preliminary suggestion that I can make already.
The production line experiences gaps because the cutting press at the start of the line occasionally runs out of materials.
Jim Malhotra, production floor supervisor, blames the warehouse for not supplying materials on time.

Frank Chan, warehouse supervisor, says production should request materials when they run low. Says his staff is too busy and don't have a good line of sight to the cutting press.

These gaps are costly, but easy to prevent.

Your target is to produce 50 smart meters per hour.

Someone should be assigned to provide 50 pieces of precut sheet metal to the cutting press every hour.

Jim and Frank cannot agree and neither has authority over the other.

You should impose a solution.

I should have my report ready in two weeks. Please let me know if you have questions: 1-905-554-1234.

Exercise 1.3: From Sequenced Notes to First Draft (without Stopping)

In Exercise 1.2 students were asked order brainstorming notes and to read out potential emails; in Exercise 1.3 to write those emails. The following emails represent the answer key to both exercises, in a sense. If instructors choose to simply have students read out potential emails the following answer keys could be handed out or discussed on screen at the end of Exercise 1.2. If instructors choose to have students proceed to Exercise 1.3 and turn their dictated emails into written documents, the following emails can be held off as answer keys to Exercise 1.3.

With these answers, some variations are completely permissible, of course. A class could well produce a dozen slightly different versions that would all meet requirements as long as they are friendly, clear, and logically organized.

Main idea: The main point is to organize a meeting. It's only polite to say something about its purpose at the same time.

Scenario A Email (other versions are possible)

Hi Everyone,

We have decided on a production consultant and will be meeting with their representative this coming Monday at 0900 in my office.

As you recall, we've been looking for some time for a knowledgeable production company to assess our production line problems. Johnson Production Engineering of Markham, ON, has consulted widely in the automotive industry both in assembly and parts manufacturing, so they are well placed to help us with the manufacture of our smart meters.

Their consultant, Brian Lee, will be arriving Monday morning and staying in town for three full days to meet with the production heads, observe our procedures and speak with workers.

He has asked to meet with all of you first thing Monday and would like the following documentation from your respective departments:

- ISO documentation on our purchasing procedures
- ISO documentation on our production processes
- Production line schematic
- Org charts
- Production metrics.

I'm really looking forward to getting this project started. Please let me know if you have questions or suggestions: extension 214.

Context: what lead to this email being written. What is the business context for this meeting? Two things. First, Pinnacle has finally found the consultant they've been looking for. Second, Pinnacle is meeting with the consultant's rep on Monday.

Details: here's what the readers need to know specifically about the meeting.

Next step: now that the readers know what is expected and what to do, the next step is an invitation to answer questions. A friendly close is included because correspondence should be personal and not stone cold.

Scenario B Email (other versions are possible)

Main idea: the purpose of this email is to provide a brief overview (report) on the business Brian has just conducted and to ask for help with a specific problem that arose.

Context: Why is this email being written? How does it fit into the conduct of business? Here's why and how.

Details: note that the writer is telling a story that is roughly chronological and moves from the general to the specific. These are the details the reader needs to know about the assignment on which the writer was sent and about the writer's unexpected difficulty.

Hi Jane,

I've just completed my initial three-day observation of the production processes at Pinnacle Manufacturing and I think they have a bigger personnel issue than some of their manufacturing issues. I may need advice.

As you may recall, Pinnacle Manufacturing engaged us to find out why their productivity is below industry average and to recommend changes to their production processes. You assigned me to the project on September 5 and I visited the client's facilities in Burnaby, BC, from Sept. 12 through 15.

I've taken a first look at some of their documentation and have observed their production processes. I'm beginning to see where their processes could be improved and think that we'll be able to make some substantial recommendations once I look into things a bit further.

However, it seems that the problems are not just systemic. While speaking to the dayshift supervisors of the production line and the supplies warehouse, where some preprocessing is done, it became obvious that these two people don't like one another and that this is leading to productivity issues quite aside from the production setup.

I've not come across this before. Do we have someone on staff, perhaps in HR, who could advise me on this issue? If so, please let me know and forward this email to him or her so I can hit the ground running when I land. No pun intended.

Next step: now that the reader has read the contents of the email, the writer asks her to do something specific.

Scenario C Email (other versions are possible)

Main point: the purpose of the email is to make the suggestion. The pleasantries are something we should take the time for in correspondence; in this case it may be necessary ego balm.

Context: the background information within which the suggestion makes sense.

Details: these are the specific details of the suggestion announced in the main idea statement.

Next step: now that Mike has the details he needs to implement the suggestion, the writer ends with an offer to answer questions. This is a standard close for correspondence, when you don't have a specific request.

Hi Mike,

It was a pleasure meeting you and your staff. I'm looking forward to working on this project, but I think that there is one preliminary suggestion that I can make already.

Your production line experiences gaps because the cutting press at the start of the line occasionally run out of materials. Jim Malhotra, your production floor supervisor, feels that it is the responsibility of the warehouse to provide supplies in time. Frank Chan, your warehouse supervisor, thinks that production should let the warehouse know in time when supplies are running low. He feels that the warehouse cannot be expected to anticipate every need of the line because they are understaffed and don't have a good line of sight to the cutting press.

These gaps are very costly, but seem to me easy to prevent. You have a target rate of 50 meters per hour. Someone needs to be assigned to make sure that at least 50 pieces of sheet metal are pre-cut to the dimensions required by the press and that they are delivered on the hour. But Jim and Frank cannot seem to agree and neither has authority over the other. I suggest that you sit down with them and impose a solution. The benefits would be immediate.

I should have my report ready in two weeks. Please let me know if you have any questions in the meantime: 1-905-554-1234.

Exercise 1.4: Request for Information on Technical Writing Workshops

In this scenario, you have been asked to find a consultant to come to your office to train the new hires, engineers in training (EITs). What follows is the first draft of an email you are sending to a likely candidate. As in Figure 1.1, this email is poorly organized and needs substantive editing. Reorganize the content, then write your revised version out in full.

Subject line: Request for information on potential technical writing workshops

Hi Mary,

We would like information on your technical writing workshops.

We have eight recent engineering grads who require upgrading on their writing skills. We would prefer to run the workshops during the week. Specifically, we would like you to help these EITs with basic writing skills (sentences and paragraphs); their sentences need to be shorter, more clear, and less passive.

We would prefer to run the workshops during the week, for instance on a series of consecutive Wednesdays, during work hours so that we are not imposing on our employees' free time. Another thing we'd like you to cover in these workshops would be document organization and structure; their emails, informal reports, and formal reports lack proper flow and structure.

Your website indicates that you offer seminar series on a number of professional skills, including technical writing.

Oh, and could you also teach them some software skills in MS Word to make them more productive; they are, for instance, not familiar with the use of sentence styles. Please let me know whether you are available, the structure and content of the workshops, and what they would cost.

If you have questions, please get back to me.

Sincerely,

Exercise 1.4: Request for Information on Technical Writing Workshops (Answer Key)

The following is a properly sequenced version of the technical writing workshop email. Bolding the first element of a bullet is a common tactic when bullets are a little longer. The bullets help the reader take-in the information clearly and quickly.

Subject line: Request for information on potential technical writing workshops

Hi Mary,

We would like information on your technical writing workshops.

Your website indicates that you offer seminar series on a number of professional skills, including technical writing. We have eight recent engineering grads who require upgrading on their writing skills. Specifically, we would like you to help them with

- basic writing skills (sentences and paragraphs); their sentences need to be shorter, more clear, and less passive
- document organization and structure; their emails, informal reports, and formal reports lack proper flow and structure
- software skills in MS Word to make them more productive; they are, for instance, not familiar with the use of sentence styles.

We would prefer to run the workshops during the week, for instance on a series of consecutive Wednesdays, during work hours so that we are not imposing on our employees' free time.

Please let me know whether you are available, the structure and content of the workshops, and what they would cost. If you have questions, please get back to me.

Sincerely,

Exercise 1.5: Fixing a Poorly Organized Email

This exercise¹ is probably a little easier than the earlier ones, but has been placed here at the end to maintain the numbering sequence from earlier editions.

This is the body of an email proposing to share an office space. Both parties are currently working from home but discussed graduating into an office space when they met at the networking event mentioned in the opening.

The paragraphs do not require editing (or only minorly so to improve the flow), but they do need rearranging according to the Main idea – Context – Details – Next Step pattern.

Please note that the answer key to this poorly organized email is also the answer key to exercise 5.9. If you want to use Exercise 5.9 in a later class, you may want to take the answer key to another exercise in Chapter 5 and rearrange the paragraphs as I have done here and use that instead.

Hi Michelle,

It was nice meeting you at last night's networking event. I'm wondering whether you would consider renting an office space together because it would increase our business.

Our companies are complementary, and we could refer business to each another. I do a lot of longer pieces of writing that are often included on websites, such as technical or product descriptions for company websites. If my clients do not yet have a web designer, I could refer them to you. Conversely, if you need web content written for your clients, you could refer them to me. We would, in other words, be able to provide a fuller suite of services to our clients and help to grow one another's businesses.

I have an idea that might help us both take our businesses to the next level.

In addition, we could share equipment such as a photocopier/printer, fridge, coffee maker, tea kettle, and so much more and could even, when the time comes, share a receptionist/office assistant. Joint insurance would also be cheaper.

I've attached some links to a couple of offices for rent in our area.

Another positive about sharing an office space is that it would increase our credibility. Our clients would come into a larger, multi-room office, which automatically looks more professional and makes us look more successful. Such a positive public image can't help but benefit our companies.

I'd love to get together some time this week to discuss this in person.

In particular, we could touch upon how my idea would save money. My research indicates that a single-room office space would cost about \$700/month, but an office large enough to fit both our businesses can be had for about \$1,000/month, or \$500/month each. That's a significant annual saving.

¹ Answer key is based on an assignment created by Gretchen Quiring, BCIT Comm Dept

Please to call me at 604.555.5555 to let me know what you think.

Looking forward to hearing from you,

Exercise 1.5: Fixing a Poorly Organized Email (Answer Key)

The following is a properly sequenced version of the shared office space email. Bolding the first element of a bullet is a common tactic when bullets are a little longer. The bolding acts almost like a heading and aids skimming.

Hi Michelle,

It was nice meeting you at last night's networking event. I think that our businesses naturally complement each other, and I have an idea that might help us both take our businesses to the next level; I'm wondering whether you would consider renting an office space together because of the many benefits that a shared office space provides:

- **Increased business:** sharing an office means complementary business referrals. I do a lot of longer pieces of writing that are often included on websites, such as technical or product descriptions for company websites. If my clients do not yet have a web designer, I could refer them to you. Conversely, if you need web content written for your clients, you could refer them to me. We would, in other words, be able to provide a fuller suite of services to our clients and help to grow one another's businesses.
- **Increase credibility:** another major benefit is that our clients would come into a larger, multi-room office, which automatically looks more professional and makes us look more successful. Such a positive public image can't help but benefit our companies.
- **Substantial savings:** we would not only save money on rent, but also on equipment, insurance, and so on. My research indicates that a single-room office space would cost about \$700/month, but an office large enough to fit both our businesses can be had for about \$1,000/month, or \$500/month each. That's a significant annual saving.

In addition, we could share equipment such as a photocopier/printer, fridge, coffee maker, tea kettle, and so much more and could even, when the time comes, share a receptionist/office assistant. Joint insurance would also be cheaper.

I've attached some links to a couple of offices for rent in our area.

Please to call me at 604.555.5555 to let me know what you think. I'd love to get together some time this week to discuss this in person.

Looking forward to hearing from you,