As you may already realize, academic writing is a product of many considerations: audience, purpose, organization, style, flow, and presentation.

Audience

Even before you start writing, you need to consider your audience. The audience for most intern/graduate students will be an instructor (mentor), who is presumably knowledgeable about the assigned topic and will have expectations with which you need to be familiar. Other possible audiences include advisors (company mentor) and graduation committees (external assessor especially for graduation). Your understanding of your audience will affect the content of your writing.

Purpose and Strategy

Audience, purpose, and strategy are typically interconnected. If the audience knows less than the writer, the writer's purpose is often instructional (as in a textbook). If the audience knows more than the writer, the writer's purpose is usually to display familiarity, expertise, and intelligence. The latter is a common situation for the intern/graduate student writer. The interesting question that now arises is what strategy (or strategies) can a student use to make a successful display.

Organization

Readers have the expectation that information will be presented in a structured format that is appropriate for the particular type of text. Even short pieces of writing have regular, predictable patterns of organization. You can take advantage of these patterns, so that readers can still follow, even if you make some language errors.

You are already likely aware that writers employ a variety of organizational patterns. You are already familiar with external organization features, such as *chapters*, *sections*, and *paragraphs*. One very common strategy that is foundational to academic writing is to organize information in terms of *problems* and *solutions* (Hoey, 1983). This pattern usually has four parts:

- Situation
- Problem
- Solution
- Evaluation

In addition to the problem-solution structure, some other ways of organizing information include the following:

- Comparison-contrast
- Cause-effect (focusing on one cause and multiple effects as in an earthquake or describing multiple causes and one effect as in an economic downturn)
- Classification [categorizing, as suggested by this example: "Earthquake effects on underground structures can be grouped into two categories: (1) ground shaking and (2) ground failure such as liquefaction, fault displacement, and slope instability." Note the cause-effect aspect of this as well.]

Academic writers need to be sure that their communications are written in the appropriate style. The style of a particular piece should not only be consistent but also be suitable both in terms of the message being conveyed and the audience. A formal report written in informal, conversational English may be considered too simplistic, even if the actual ideas and/or data are complex. One difficulty in using the *appropriate style* is knowing what is considered academic and what is not. The grammar-check tool on your word processing program is likely not of much help in this matter since such programs are written primarily to find spelling and basic grammar errors and not to offer stylistic advice for academic writers. Moreover, what little stylistic advice is offered may not be right for what you are writing. For example, contrary to what your grammar checker might suggest, if you are describing a procedure or process, you can and probably even should use *passive voice* in many cases.

Deciding what is academic or not is further complicated by the fact that academic style differs from one area of study to another. For instance, contractions (e.g., don't) may be used in Philosophy but are not widely used in many other fields. And, as noted in a study by Chang and Swales (1999), some authors often use informal elements such as sentence-initial but; imperatives (as in the common expression consider the case of . . .); and the use of I. In the case of I, we see quite a bit of disciplinary variation. It is less commonly used in Computer Science papers (5.6 per 10,000 words in the Michigan Corpus of Upper-level Student Papers-MICUSP) but is frequent in Philosophy (53.9 occurrences per 10,000 words in MICUSP). Other fields lie somewhere in between those two. All this variation contributes to even more confusion when trying to determine what is "academic." Finally, academic style is not used in all academic settings. Research based on the Michigan Corpus of Spoken Academic English (MICASE) shows that academic and research speech, in linguistic terms, is much more like casual conversation than written academic English. It is not uncommon to hear U.S. lecturers use words and phrases like stuff, things, a bit, bunch, or a whole lot of, which we would not expect to find in a written academic text. They may also use elaborate metaphors and other vivid expressions to enliven their speaking style. (For some examples of spoken academic English, check MICASE at www.elicorpora.info/.)

Now let's explore some additional points that you can think about when working on your writing style. If you search for "academic style" on the internet, you may or may not be surprised at the roughly 260,000 hits (more or less). Clearly, a lot of people have a lot to say about this topic. You will find pages of things to do and not do (for instance, never use I, but do use references to support your points); pages telling you to forget about the "rules"; and other pages that describe what academic style is and is not (e.g., academic style is formal and not casual; it is not about using big words). Although many perspectives on academic style are available, much of the advice is vague, conflicting, and often based on personal preference rather than research. Thus, it should come as no surprise that, despite a sizeable amount of research, academic writing is in fact "poorly understood by teachers and students alike" (Lillis, 1999). So, where do we begin? You may wish to incorporate some of these points into your writing and ignore others. In the end, our purpose here is for you to think more about your stylistic choices as you write and to help you realize that good academic writers make many stylistic choices as they write.

The Vocabulary Shift—Verbs

English often has two (or more) choices to express an action or occurrence. The choice is often between a phrasal (verb + particle) or prepositional verb (verb + preposition) and a single verb, the latter with Latinate origins. In lectures and other instances of everyday spoken English, the verb +

preposition is often used; however, for written academic style, there is a tendency for academic writers to use a single verb when possible. In some fields this is a very noticeable stylistic characteristic. Here is an example:

- Given our fast-paced society, people must routinely **put** creative solutions to unexpected problems **into practice**.
- Given our fast-paced society, people must routinely **implement** creative solutions to unexpected problems.

English has a very rich vocabulary derived from many languages. Because of this, there may be more than one way to express an idea. When several alternatives are available, choose the one that most efficiently and accurately gets your point across.

You may have also noticed that in many academic texts there is an abundance of rather long noun phrases, which tend to carry a lot of meaning in a rather compact form. Thus, it is possible to write:

- The emergence of English as the international language of scientific communication has been widely documented.
- English has emerged as the international language of scientific communication. This phenomenon has been widely documented.

The first example contains a very long noun phrase, a nominalization. Which of the two sentences do you prefer? Why? Which do you think would be more similar to writing in your field? What, if anything, do you think is gained or lost by nominalizing?

Flow

Another important consideration for successful communication is flow—moving from one statement in a text to the next. Naturally, establishing a clear connection of ideas is important to help your reader follow the text.

Although your first instinct in establishing a smooth flow of ideas is to use logical connectors such as *however* or *furthermore*, many writers generally try to follow a progression from old or given information, which is in the subject position or early at the left end of the sentence, to new information, which is placed at the right end of the sentence. Placing relevant "old" information in early position establishes a content connection backward and provides a forward content link that establishes the context. Notice how this old-to-new pattern is established in this text.

• Research has shown that caffeine does indeed reduce sleepiness and can lead to better/academic performance since students can spend more time studying. Despite its effectiveness in counteracting sleepiness, caffeine can have a negative impact on subsequent sleep, which for many/students may already be compromised. Specifically, caffeinated beverages consumed near bedtime at night can prolong sleep onset and reduce sleep efficiency and depth, thus affecting both sleep quality and duration. Most of the research on how caffeine affects sleepiness/alertness has focused on coffee or no-doze pills. However, a new kind of caffeinated drink has become increasingly popular, namely functional energy drinks (FEDs). 6 FEDs are marketed as products that can improve both mental and physical performance. 10 In addition to containing caffeine, FEDs have other active ingredients such as taurine, glucose, and glucoronolactone. @ Exactly how these ingredients together affect alertness remains unclear.

The old-to-new pattern of information is established by starting a text with some familiar information. In the following sentence, you can repeat some information from the previous sentence (exact repetition, in the form of a synonym or variation on the part of speech).

Presentation

Most instructors tolerate small errors in language in papers written by nonnative speakers—for example, mistakes in article or preposition usage. However, errors that instructors think could have been avoided by careful proofreading are generally considered less acceptable. These include the use of an incorrect homophone (a word that sounds exactly like another, such as too/to/two); basic grammar errors (e.g., subject-verb agreement); and misspelled words, including those that are not identified in a computer spellcheck routine. The issue of grammar errors is a complicated one since many instructors do not appreciate how difficult it is to master some aspects of English such as articles (a, an, and the) and prepositions. We believe that if the flow of ideas is good, small errors may not be noticed; when the flow of ideas is not strong—i.e., does not follow the old-to-new principle—grammar errors may be more pronounced. Thus, it makes more sense to us to focus more on content and information flow first and then tend to matters of grammar only after all other aspects of the paper are in good shape.

Source: Swales, J. M., & Feak, C. B. (2004). *Academic writing for graduate students: Essential tasks and skills*. Ann Arbor, Mich: University of Michigan Press.