Diagnostic Quiz on Grammar: Key for the Comments

On your quiz, you will receive comments in the form of a combination of the following letters:

A B C D a b c d e

Each letter refers to a specific comment, which is explained below. In providing these comments, we have tried to help you avoid mistakes that will undercut your credibility with employers. The explanations of the comments come from *The Craft of Scientific Writing,* 4th ed. [Alley, 2018].

A: Correct use of *affect* or *effect*

B: Correct use and punctuation of *although*

C: Correct use and punctuation of *however*

D: Good sentence variety to make connections between ideas

In a sophisticated manner, you varied the way that sentences began to achieve solid connections between your ideas.

a: Misuse of *affect* or *effect*

The word *affect* is almost always a verb with the meaning to influence. The word *effect,* on the other hand, is usually a noun and means a result ("greenhouse effect"). A cause for confusion is that *effect* can also be used as a verb meaning to bring about: "She effected the change of orders." Adding even more confusion to the situation is that in the field of psychology, *affect* is used as a noun with the meaning of an "emotional response." Should you have a problem differentiating between these two words, then you should use *affect* solely as a verb meaning to influence and use *effect* solely as a noun meaning a result.

b: Incorrect use of *although*

In engineering and science, the word *although* is an important word to make an argument. In essence, the word *although* introduces a dependent clause that presents one side of an argument, and the independent clause that follows then presents the other side:

> Although all of the wolves survived the rugged winter, the bitter cold and lack of food weakened many in the pack.

Given this use, the word *although* is never followed by a comma:

> All of the wolves survived the rugged winter. **Although,** the bitter cold and lack of food weakened many in the pack.

Here, the author has simply used the wrong word. The word that the author wanted was *however*:

> All of the wolves survived the rugged winter. However, the bitter cold and lack of food weakened many in the pack.

Because the word *although* is such an important and often used word in engineering and science, making the mistake given above seriously undercuts one's credibility.

c: Run-on sentence with *however*

Sentences are the fundamental units of expression in scientific documents. Readers of professional writing expect authors to write in sentences. When a sentence runs on, readers often lose their place in the paragraph. They also lose confidence in the author. The most common type of run-on sentence occurs when the writer tries to use an adverb such as *however, otherwise,* or *therefore* to join two independent clauses:

> All of the wolves survived the rugged winter, however, the bitter cold and lack of food weakened many in the pack.

This group of words is a run-on—in this case, two sentences were joined incorrectly by a comma and the adverb "however." Several ways exist to correct the error:

> All of the wolves survived the rugged winter. However, the bitter cold and lack of food weakened many in the pack. *(rewritten as two sentences—note the mandatory comma after* however*)*
>
> All of the wolves survived the rugged winter; however, the bitter cold and lack of food weakened many in the pack. *(comma replaced with semicolon)*
>
> All of the wolves survived the rugged winter, but the bitter cold and lack of food weakened many in the pack. *(adverb replaced with conjunction)*
>
> Although all of the wolves survived the rugged winter, the bitter cold and lack of food weakened many in the pack. *(first independent clauses made dependent)*

Of the four proper corrections, the last is the most sophisticated because from the first word of this sentence (*although*), the audience knows that the sentence is headed in one direction, but will turn back before the sentence's end.

d. Weak connections between sentences—too many sentences begin with the subject.

As an engineer or scientist, not only should you cast your ideas in precise and clear sentences, but you should also connect your ideas. To connect your sentences into paragraphs, you should begin each new sentence with wording that makes a solid connection to the previous sentence. Connecting with the previous sentence requires that you have an assortment of transitional words and phrases such as *therefore*, *however*, *for example*, and *for that reason*. Connecting with the previous sentence also requires that you have an array of sentence openers such as prepositional phrases, infinitive phrases, and dependent clauses.

e. Missing comma after an introductory phrase or clause.

In scientific writing, you should insert a comma after an introductory phrase or clause. When engineers and scientists ignore this recommendation, ambiguity often results:

> When feeding a shark often mistakes undesirable food items for something it really desires.

A comma is required after the word *feeding*:

> When feeding, a shark often mistakes undesirable food items for something it really desires.

Although general writing textbooks often say that a comma after an introductory phrase or clause is optional unless ambiguity would occur, the complexity of engineering and science makes this comma almost mandatory.

Alley, Michael, *The Craft of Scientific Writing,* 4th ed., www.craftofscientificwriting.com (New York: Springer, 2018).