Introduction to English for Scientific Communication:

Quiz 4 Answers

Part 1: Each of the sentences below has at least one incorrect use of a verb. Please find this mistake (these mistakes) and correct them.

Q1. This analysis is analogous ~~to the one~~ in Fujisawa's work.

A1. This analysis is analogous to <u>that</u> in Fujisawa's work.

Q2. The function *G* is very important in our model, which is defined by $G= \int d\theta F$.

A2. The function *G* is very important in our model. <u>This function is</u> defined by $G= \int d\theta F$.

A2'. The function G<u>, defined by $G = \int d\theta F$,</u> is very important in our model.

A2''. The function *G*<u>, which is defined by $G = \int d\theta F$,</u> is very important in our model.

A2'''. The function *G*<u>, which we define by $G = \int d\theta F$,</u> is very important in our model.

A2''''. The function *G* is very important in our model. <u>We define this function by</u> $G = \int d\theta F$.

(Here, "define(d) by" could be changed to "define(d) as").

Q3. The corrections to these constant gauge parameters are calculated in Ref. 1. It suggests a significant effect.

A3. The corrections to these constant gauge parameters are calculated in Ref. 1. <u>The result(s)/The result(s) obtained there/The result(s) given there/These corrections/The corrections found there/Those calculations/The calculations given there/The calculations appearing there</u> suggests a significant effect.

(Replacing "It" with anything that could reasonably be considered to "suggest a significant effect" is correct.)

Q4. The derivations given in this paper are quite similar to the ones presented in Ref. [3].

A4. The derivations given in this paper are quite similar to <u>those</u> presented in Ref. [3].

Q5. We then obtain the expression $u = \int dx F(x)/[cx + g(x)]$, where c is a constant. We discuss its value in Sec.2.

A5. We then obtain the expression $u = \int dx F(x)/[cx + g(x)]$, where c is a constant. We discuss <u>the value of this expression</u> in Sec.2.

Part 2. Underline the modifiers in the sentences below and then rewrite the sentences as requested. Finally, explain the difference between the meanings of the first sentence and the rewritten version.

6. First underline the modifier in the sentence below, and then rewrite the sentence so that the modifier becomes a non-defining modifier.

The pen <u>that I borrowed from Jim</u> is blue.

<u>The pen, which I borrowed from Jim, is blue.</u>

What is the difference in meaning between these two sentences?

<u>In the first sentence a defining modifier is used, which means that the information "I borrowed from Jim" is necessary to understand which pen is being discussed. This is not the case in the second sentence. Therefore, the first sentence implies there are many pens, the second implies there is only one pen.</u>

7. First underline the modifier in the sentence below, and then rewrite the sentence below so that the modifier becomes a defining modifier.

The equation, <u>derived in section 2</u>, has to be solved numerically

<u>The equation derived in section 2 has to be solved numerically.</u>

What is the difference in meaning between these two sentences?

In the first sentence, there is only one equation that could possibly be under discussion. In the second sentence there is more than one equation, so which equation is being discussed must be defined.

Part 3: In each of the following pairs of sentences, the correct and incorrect use of the underlined phrase is given. Please circle the letter of the correct sentence.

8.   (a) Jim is very short. On the contrary, he is shorter than me.

   (b) Jim is not very tall. On the contrary, he is shorter than me.

9.   **(a)** The dynamics do not display much nonlinearity. On the contrary, they can be modelled well by a linear approximation.

   (b) The dynamics are linear. On the contrary, nonlinearity must be considered to model them.

10.   **(a)** This natto smells bad. On the other hand, it is very tasty.

   (b) This natto smells bad. On the other hand, this peach smells very nice.

11.   **(a)** The Magnetohydrodynamic equations provide a good basis to model magnetised plasma. On the other hand, the complexity of the equations means that most models have to be solved numerically.

   (b) The Magnetohydrodynamic equations provide a good basis to model magnetised plasma. On the other hand, Boltzmann's equation provides a better basis to model physics on the kinetic scale.

Part 4: The words 'between', 'among' and 'of' are missing from the sentences below. Add the correct word to complete each sentence.

12. The time step of the simulation is determined by the faster of the characteristic velocities of the system.

13. The electrons are modelled as massless particles that flow between the two charged plates.

14. There was great debate among/between scientists about the existence of superluminal neutrinos.

(When you use between you are implying that there are two distinct groups of scientists with all members in each group having the same opinion.)

15. According to recent observations, the distance <u>between</u> galaxies is increasing.

16. Performing a Gaussian fit to the data is the better <u>of</u> the methods for determining the peak intensity.

17. In the past few decades, the concept of group selection has made a quiet comeback <u>among</u> evolutionary theorists.