

1) Find **four** mistakes among the **underlined** words/phrases.

A greenhouse is a glass building used to grow plants. A greenhouse has transparent glass that allows the sunlight to pass through, but does not allow the heat inside to escape. The same affect occurs on the earth. The suns radiation passes through the atmosphere to heat the earth's surface. When heated, the earth's surface produces infrared radiation, which has a longer wavelength than that of sunlight. This infrared radiation rises into the atmosphere where gases, such as carbon dioxide, prevents the infrared radiation from escaping into space. The concentrations of these gases which are called greenhouse gases, control how much infrared radiation escapes. The retained radiation heats the earth's atmosphere, thus keeping the planet warm.

2) For each excerpt, identify the source of the ambiguity: (1) improper syntax (word order), (2) missing comma, (3) unclear pronoun reference, or (4) grouping of conflicting words.

- The Lunar Module was only designed to hold two astronauts and to have a life time of forty-five hours.
- The beams are positioned with respect to the chopper blade so that while one beam passes the output of the opposite beam is completely blocked.
- The Hindenburg was filled with hydrogen because it is lighter than air...The report claimed that a hull wire could have ruptured a gas cell if it fractured.
- Avoiding complicated multi-ordered calculations, the equations come from fundamental definitions of mass flow, work, and efficiency.
- To provide spill protection, all tanks were equipped with basins and automatic shutoff devices or overflow alarms or ball float valves.
- Being the first step in introducing CFD, Jones had to set up conservative assumptions.
- As with any system errors occur in localization.
- Having a model would help designers predict the effects of engine operation over all speeds.

CZENGLISH

*Look at some of the sentences and try to identify the problems common to Czech learners of English. (For more see **Don Sparling: English or Czeenglish**)*

A) The town has three theatres and two concert halls. Besides there are more than twenty cinemas. (34)

B) This invention enabled to do twice as much work a day. (74)

C) I think he won't come./ * I want him not to go there./ * John seems not to be very bright./ *

D) Everybody doesn't agree with me./ * Some teachers can't understand that everyone isn't interested in their subjects. (154)

Working with text: Read the following abstract of an essay titled “An integrated network visualization framework towards metabolic engineering applications” and then do the exercises below. (source: Noronha A, Vilaça P, Rocha M. An integrated network visualization framework towards metabolic engineering applications. <http://www.ncbi.nlm.nih.gov/pubmed/25547011>).

Abstract

Background

Over the last years, several methods for the phenotype simulation of microorganisms, under specified genetic and environmental conditions have been proposed, in the context of Metabolic Engineering (ME). **[A]** On the other hand, in the context of Systems Biology research, biological network visualization has reinforced its role as a core tool in understanding biological processes. However, it has been scarcely used to foster ME related methods, in spite of the acknowledged potential.

Results

In this work, an open-source software that aims to fill the gap between ME and metabolic network visualization is proposed, in the form of a plugin to the OptFlux ME platform. The framework is based on an abstract layer, where the network is represented as a bipartite graph containing minimal information about the underlying entities and their desired relative placement. **[B]** A user-interface makes it possible to edit, manipulate and query nodes in the network, providing tools to visualize diverse effects, including visual filters and aspect changing (e.g. colors, shapes and sizes). **[C]**

Conclusions

[D]

- 1) These tools are particularly interesting for ME, since they allow overlaying phenotype simulation results or elementary flux modes over the networks.
- 2) The framework and its source code are freely available, together with documentation and other resources, being illustrated with well documented case studies.
- 3) The framework provides input/output support for networks specified in standard formats, such as XGMML, SBGN or SBML, providing a connection to genome-scale metabolic models.
- 4) These methods provided insight on the functioning of microbial metabolism and played a key role in the design of genetic modifications that can lead to strains of industrial interest.

- 1) *Four sentences are missing in the text. Put them into the correct place in the text.*
- 2) *Rewrite the introduction using your own words. Make sure you do not change the meaning of the text.*

LINKING PARAGRAPHS

The following is an excerpt from an essay. Notice how the essay creates links between paragraphs by using repetition and restatement (circled), transitional expressions (boxed) and transitional sentences (annotated).

Adapted from Fowler, Henry Ramsey; Aaron, Jane E., and Janice Okoomian. *The Little, Brown Handbook*. 10th ed. New York: Longman. 2007.

Introduction establishing subject and stating thesis

A hyperactive committee member can contribute to efficiency. A hyperactive salesperson can contribute to profits. When children are hyperactive, though, people—even parents—may wish they had never been born. A

Thesis statement

collage of those who must cope with hyperactivity in children is a picture of frustration, anger, and loss.

Transitional topic sentence relating to thesis statement

The first part of the collage is the doctors. In their terminology, the word hyperactivity has been replaced by ADHD, attention-deficit hyperactivity disorder. They apply the term to children who are abnormally or excessively busy. . . .

Transitional topic sentence relating to thesis statement

As the mother of an ADHD child, I can say what the disorder means to the parents who form the second part of the collage. . . .

Transitional sentence

The weight of ADHD, however, does not rest on the

Topic sentence relating to thesis statement

doctors and parents. The darkest part of the collage belongs to the children. . . .

Transitional sentence into conclusion, restating thesis statement

The collage is complete, and it is dark and somber. ADHD, as applied to children, is a term with uncertain, unattractive, and bitter associations. The picture does have one bright spot, however, for inside every ADHD child is a lovely, trusting, calm person waiting to be recognized.

SEMICOLON

Main clause + main clause (no coordinating conjunction)

The side effects are not minor; some leave the patient quite ill.

The semicolon separates equal sentence elements (often working around expectations).

The airline campaign had highlighted only half the story; the other half was buried in the copy.

The campaign should not have stressed the pilots' insecurity; instead, the campaign should have stressed the improved performance resulting from that insecurity.

We often use semicolons between main clauses related by however, for example, etc.

Exercise: rewrite the sentences so that they include a semicolon and the expression in parenthesis.

- 1) Most music computers are too expensive for the average consumer. Digital keyboard instruments can be inexpensive. They are widely available. (*however*)
- 2) Inside the keyboard is a small computer. The computer controls a sound synthesizer. The instrument can both process and produce music. (*consequently*)
- 3) The person playing the keyboard presses keys or manipulates other controls. The computer and synthesizer convert these signals. The signals are converted into vibrations and sounds. (*immediately*)
- 4) The inexpensive keyboards can perform only a few functions. To the novice computer musician, the range is exciting. The range includes drum rhythms and simulated instruments. (*still*)
- 5) Would-be musicians can orchestrate whole songs. They start from just the melody lines. They need never again play "Chopsticks." (*thus*)