

# THE GRAMMAR OF ACADEMIC WRITING

In the same way that academic writing is “a language apart”, as it were, it resorts to some grammar uses more frequently than everyday language, while almost ignoring other. In this section we will cover the most common grammar uses associated with academic writing.

## WARMING-UP

1. Grammar enables us to produce specific language functions/uses/patterns, that is, the concrete “things” that we do through words. There are, consequently, some language functions that are more common in academic language than in general language.

In the bibliography section of this course, you will find comprehensive academic grammar references. For the purposes of this section, have a look at the main language functions associated with academic writing and their corresponding grammar items. Could you put them in the correct order? Could you add any language functions and indicate the corresponding grammar uses?

Language functions	Grammar items associated
1. Defining	a. Conditional tense
2. Describing	b. Adjective order, use of adverbs
3. Process description	c. Fixed expressions: consist of, can be classified as...
4. Classification	d. Adjectives in comparative and superlative form, connectors of contrast
5. Comparison and contrast	e. Imperative tense, modal verbs
6. Giving extra information	f. Relative clauses, purpose clauses
7. Dealing with figures	g. Using numerical phrases
8. Establishing hypotheses	h. Connectors of addition
9. Giving instructions	i. Verbs of action, prepositions, passive voice, sequence markers, simple present and present continuous tenses
10.??	??

2. Let us think of simple instances of each item, as in the example:

**Defining:** where are the relative and the purpose clause?

<i>An oscilloscope is a type of electronic test instrument that...</i>	<i>graphically displays is used to display can display</i>	<i>varying signal voltages.</i>
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...

## FURTHER CONSTRUCTIONS TYPICAL OF ACADEMIC ENGLISH

Here is a brief account of the most frequent patterns in written academic English. You certainly know them, but perhaps you have not been aware of their relevance concerning your own uses of formal writing:

### **1. Nominalizations and compounds:**

Nominalization is the process of turning *verb phrases* into *noun phrases*, and it is much more frequent in academic than in general English:

<b>Grammatical phrase</b>	<b>Noun phrase</b>
<i>One of the company's priorities was <u>to create</u> a new network system.</i>	<i><u>The creation of</u> a new computer system was one of the company's priorities.</i>

Likewise: *to develop / the develop**ment**, to increase / the increase, to explain / the explanation**ion**, to evolve / the evolution, to rely on / the reliability*... Look at the different endings for nouns. Can you think of any more examples?

Compound nouns and acronyms are formed by the assemble of several nouns and some other elements (adjectives, participles, prepositions).

They are very common, as we will see, in essay titles. They are also common in general English: *long-distance runner, sugar-free drink*.

Hyphenation depends on use (it is recommended to double-check before deciding). Acronyms are form by capitalizing compounds, e.g. *GPS (Global Positioning System)*.

The noun that helps us understand, translate, or paraphrase the compound is always the last one: *Academic Word List, a list of academic words*. Usually, the nouns in the middle of the sequence do not take plural “s”.

Now it is your turn: look for examples of compounds and nominalizations in the following clauses:

*Wireless Power Transfer (WPT) is the transmission of electrical power from a power source to a consuming device without the use of solid wires or conductors.*

*In this article we will discuss the short-term physiological effects of this common substance.*

*The Automatic Underwater Vehicle (AUV) allows precision in short-range movements and complete reliability in complex marine archaeological explorations.*

## **2. Passive voice and reporting verbs:**

Although it must not be overused, the passive voice is much more frequent in academic English than in general English, since we are usually more interested in the action than in the maker. It is indispensable, for instance, when processes are explained: *First, the alloy is fed into the tube. Then, it is melted through the catalytic process. Finally, it is poured onto a recipient...*

Quite often, the passive voice in academic English is introduced through reporting verbs in the impersonal construction *it* + passive voice + *that*-clause: *It is often argued that, ... It can be deduced that...* in these cases, there is a wide variety of useful verbs available, such as: *affirm, state, support, agree, disagree, challenge, claim, allege, imply, propose, identify, interpret...*

## **3. Causative verbs and expressions:**

To express cause-effect relationships, there is a very specific choice of verbs in English. Pay attention to the corresponding syntactical expression:

*Satellites allow/enable/cause remote areas to receive reliable Internet signal.*  
(VERB + DIRECT OBJECT + TO + INFINITIVE)

*Robots make/let/help repetitive and precise tasks become more time-efficient.*  
(VERB + DIRECT OBJECT + INFINITIVE WITHOUT TO) (in the case of “help” it can be both ways)

In some cases, these verbs can substitute their verbal expression by nominalization:

*Satellites allow **the reception of** a reliable Internet signal.*

#### 4. Linkers and connectors:

They are the real “heroes” of academic English: together with a fluent use of reference words (pronouns, demonstratives, relatives) and prepositions, they take all the responsibility for the cohesion and coherence of a text, marking the sequential evolution of its content.

When thinking about connectors, we do not think about our text as a group of words put together anymore, but about **a group of paragraphs**.

There are countless lists of linkers and connectors available. Here are two lists of the most helpful ones, based on what they express. Let us examine them, and check the grammatical use of the items described:

<https://aprendeconadela.com/linkers-and-connectors-los-conectores-del-ingles/>

<https://sites.google.com/site/maycaingles2011/writing/linkers-and-connectors>

The difference between linkers and connectors is irrelevant for your purposes (unless you are a linguist). As a matter of fact, apart from conjunctions and adverbs, there are also verbs that typically join paragraphs in quite the same way of a connector. The key issue is that you use the syntactical construction correctly, whether it is a simple or subordinate sentence or a noun phrase (nominalization). For example:

*As **a result**, the mixture of both substances formed a more resistant material.*  
(CONNECTOR OF CONSEQUENCE + COMMA + FULL SENTENCE)

*The mixture of both substances **resulted in/led to** the formation of a more resistant material.*  
(SUBJECT + VERB OF CONSEQUENCE WITH PREPOSITION + NOMINALIZATION)

## A QUICK TEST ON ACADEMIC WRITING

### 1. Complete the table with the correct connector in each case:

a) since    b) while    c) by means of    d) such as    e) moreover    f) so that    g) hence    h) in short

No.	Item
1	.... an antenna works on high frequency signals, the impedance of the transmission lines also becomes important. (reason)
2	..... to achieve maximum power, the impedance of an antenna should match to the impedance of the source and transmission line as well. (consequence)
3	The two servo motors are controlled ..... an android Bluetooth application. (how to do it)
4	Power is transmitted through electromagnetic radiation ways, .... microwaves or laser beams. (examples)
5	This way, the impedance of the wave guide is matched with the impedance of the free space, ..... the EM waves can be received properly. (purpose, finality)
6	..... , the old electric field does not get adjusted to the new field very well. (summarize)
7	There are four components in the circuit. .... , the circuit is energized by a power supply. (addition)
8	.... Chinese smart city apps are efficient at data collection, they present some privacy drawbacks. (contrast)

Now, identify the type of connector used (of reason, consequence...)

No.	Item
9	.... Hertz experiment was successful, it raised new questions a) However    b) In spite of    c) Although
10	..... , to achieve maximum power, the impedance of an antenna should match to the impedance of the source. a) So that    b) Therefore    c) By means of
11	The control of two servo motors is possible ..... Bluetooth module and Arduino NANO. a) because    b) in spite of    c) by means of
12	Maximum power inefficiently applied may .... loss of energy. a) be led to    b) lead to    c) lead for
13	... the electric field cannot break, the field between these distances must transition. a) since    b) because of    c) due to
14	This spark ..... the radiation of electromagnetic waves. a) in order to    b) resulted in    c) therefore
15	There are four components in the circuit. .... , the circuit is energized by a power supply. a) As well as    b) In addition to    c) Moreover
16	... start building the project, a schematic diagram is required. a) In order to    b) So that    c) For

**2. Underline all the examples of academic grammar and language (everything you have learnt in this section and in the previous ones) in the following texts corresponding to the description of students' projects:**

**Text 1**

The basic aim of this project is to transmit electric power wirelessly.

Wireless Power Transfer (WPT) or wireless energy transmission is the transmission of electrical power from a power source to a consuming device without using solid wires or conductors. Wireless transmission is used to power electrical devices in cases where interconnecting wires are inconvenient, hazardous, or are not possible.

Wireless power techniques fall into two categories, non-radiative and radiative. In near-field or non-radiative techniques, power is transferred over short distances by magnetic fields using inductive coupling between coils of wire. In radiative or far-field techniques, also called power beaming, power is transmitted by beams of electromagnetic radiation, such as microwaves or laser beams.

**Text 2**

**Bluetooth controlled missile launcher**

This Project deals with a device to control a missile launcher model through a smartphone using an android Bluetooth application. The model of the missile launcher is built with two servo motors. One servo motor turns the missile launcher left and right, while another servo motor moves the missile launcher up and down. These two servo motors are controlled by means of an android Bluetooth application in a smartphone. The user presses buttons in the application to move missile launcher up/down or to turn left/right, whereas the application will send commands through phone inbuilt Bluetooth.

The application demonstrates the control of two servo motors through a smartphone with the help of Bluetooth module and Arduino NANO.

**Text 3**

**Cell Phone Detector Circuit**

The most common electronic equipment used nowadays is Cell Phone or Mobile Phone. With advancement in communication technology, the requirement of cell phones has increased dramatically. A cell phone typically transmits and receives signals in the frequency range of 0.9 to 3GHz. This article provides a simple circuit to detect the presence of an activated cell phone by detecting these signals.

Adapted from: <https://www.engineersgarage.com/electronic-projects/wireless-power-transfer/>

### FURTHER REFLECTION:

From your academic text, choose two short consecutive paragraphs, different from the ones you used in the previous section (from any part, except the abstract). Then, complete the following tasks:

1. Underline all the examples of linkers and connectors that you find or introduce them accordingly.
2. Look for similar expressions, paying attention to the syntactical and punctuation changes required. E.g.:

*Although solar panels belong to the type of renewable energies, they are not free from several environmental issues.*

(CONNECTOR + SUBORDINATE CLAUSE)

*Solar panels belong to the type of renewable energies. However, they are not free from several environmental issues.*

(SIMPLE SENTENCE + PERIOD + CONNECTOR + COMMA + SIMPLE SENTENCE)