Тема 9. Особливості написання наукових статей англійською мовою

📖 **Text 1.** Read the text and summarise the main points in 10-15 sentences.

ESSENTIAL FEATURES OF EFFECTIVE ACADEMIC WRITING IN ENGLISH

The prevalence of English as not only the *lingua franca* but as an important transmission medium of scientific knowledge compels the professionals in all spheres to acquire "academic literacy" in the English language. Consequently, future specialists are expected to be not only fluent in English, but also well-versed in the style and standards of the English academic discourse. Hence, it is crucial to know the peculiarities of academic writing in English to be able to produce effective profes-sional communication. Academic writing in each language possesses a number of unique features, which must be taken into account. It is well established that transfer of academic norms from a person's mother tongue to English can be a challenge, which may impair the quality of academic writing. Failure to conform to a specific academic style (among others) can create a bad impression on the reviewers and result in rejection, even if the research findings are valid. Therefore, the major challenge for researchers is the difficulty in transition to academic standards of a foreign language.

Therefore, we will discuss: (1) some insights into the specific features, including relevant grammar and lexical features and norms of academic writing in English; (2) the tips for rendering academic writing persuasive; (3) the major tendencies in the modern English language as pertains to written discourse. The study of potential difficulties, which Ukrainian professionals may face in the process of academic writing in English, is important for developing the guidelines to eliminate possible mistakes and avoid misunderstanding in communication.

Before starting any piece of research, it is essential to define the purpose of academic writing. According to the Researcher Connect teaching framework, academic writing always embraces two types of purposes: the surface and the deeper one. The surface purpose impliesdescribing one's achievements in the area / sharing one's research findings with peers / getting a promotion at work / passing a credit test or an exam, etc. Meanwhile, the deeper purpose of academic writing is to persuade the audience of the significance of one's research, i.e., that one's essay is convincing / one's presentation is worth visiting the talk/one's article is worth downloading and reading the entire paper (i.e., to persuade them to read more than an abstract).

Understanding the audience is yet another critical element of academic writing. In order to produce an effective persuasive discourse, the writer must understand the reader's perspective. It is necessary to bear in mind that the reader will scan research under the WIIFM principle: "What's In It For Me?". Therefore, a successful audience profile should adhere to the following algorithm:

1) Who are your readers (e.g., researchers, administrators, politicians, teachers, doctors, etc.)?

2) What the reader already knows.

3) What the reader needs to know: what should be included and what to read first.

4) What you want the reader to: *know* (e.g., to learn something new); *think* (of something new); *do* (e.g., convince them to attend your presentation at the conference or download and read the entire article; persuade them to perform certain actions as suggested and argued in your essay).

As one can observe, persuasion is a principal goal of any academic writing. The aim is to persuade the reader to accept the new knowledge claims. As people are not persuaded until they are convinced that something is true, the act of persuading involves showing how something is true or how it can be shown to be true. For example, in the case of essay writing at universities, the purpose of a student's text is to convince the reader – the lecturer – that the assignment purpose has been achieved. Likewise, in a typical research article, each stage has its specific persuasive goal. The purpose of the introduction section is to convince the reader that the research is necessary and useful. The methods section aims to convince the reader that the research was done well. The purpose of the results section is to convince the reader that, for example, the statistical methods used were useful and informative. The discussion section is designed to convince the reader that the results make sense and contribute to a consistent body of knowledge.

At the prewriting phase of academic writing, it is essential to choose a position. For this purpose, it is necessary to think about the issue under consideration and to pick the side, which will be advocated. One should identify the most convincing evidence, as well as the key points for the opposing view. In this context, it is reasonable to follow the PEEP principle, which suggests structuring research according to the following sections: *Point* (i.e., the statement sentence), *Evidence* (referring to authoritative sources), *Explanation* (demonstrating how these sources pertain to the point of research), *Point* (restatement of the research claim).

Furthermore, the 6Cs rule of academic writing is of particular importance: scientific communication has to be clear, concise, concrete, correct, coherent, and complete.

Let us focus on the conciseness principle as one of the cornerstones of academic writing. In fact, the Institute of Industrial Psychologists in the UK researched the link between readability and sentence length by asking 100 people to read three sentences once and checking the comprehension levels of each person. The length of each sentence was 7, 17, and 27 words, whereas understanding at one reading was 96%, 75%, and 4%, respectively. Hence, researchers concluded that the maximum sentence length should be 20 words. The average length of a sentence should be 12-15 words. The average paragraph length should be 8 lines for printed sources, and 4 lines for online sources .

It is necessary to bear in mind that the language of persuasion should always be implicit. That is to say, the participants of rhetorical persuasion must be eventually convinced that they have not been convinced at all. One of the ways to achieve this effect is by using strong and active language, which brings a confident attitude to academic writing. Using active language in academic writing helps to: stay direct and concise, get to the point, focus the readers' attention, achieve greater

impact, and ultimately persuade your audience. In contrast, passive voice can be imprecise and confusing; it can slow the reader down and disrupt the sentence focus. Indeed, passive voice can weaken your writing and result in excessive wordiness, which may switch off the readers' attention. For example, The research statement has been supported by the focus group (Passive voice) / The focus group has supported the research statement (Active voice). As one can observe, the active voice sounds stronger, leaving no room for uncertainty. In general, the passive voice is used to describe a process, the results of the study, or similar material, which is objective, whereas active voice is used to describe actions. Therefore, it is usually appropriate to use a good balance of passive and active forms within academic writing. The choice of active/passive voice depends on the context.

Clarity of meaning is paramount in research. The aim must be to avoid any possibility of confusion in the written and spoken meaning.

Another important aspect is the use of appropriate tenses in academic writing. In our previous study, we found that three tenses make up 98% of the tensed verbs used in academic writing. The most common tense is present simple, followed by past simple and present perfect. These tenses can be used both in the passive and active voice. The present tense is appropriate for the Background or Introduction, as well as the Discussion section. The present perfect tense is mostly used for referring to previous research in the field and/or one's previous findings; it implies that the result is still true and relevant today.

The actual research (the Methods and Results sections) is written in the past tense. Diagrams and figures are described in Present simple tense. Meanwhile, the Conclusion section may usually contain a combination of tenses.

Other potential lexical challenges in academic writing include the use of paronyms (similar-sounding words with a partial coincidence of morphemic composition); "translator's false friends", also known as pseudointernationalisms (words in two languages that look or sound similar but have entirely different meanings); contronyms (words with two contradictory meanings); eponyms (terms derived from people's names); Latinderived terms and spelling differences in British and US English.

Thus, academic writing in English has a number of unique features, which must be respected and taken into account. The deeper purpose of any academic writing is to persuade the audience of the significance of the author's research. Therefore, specific language tools must be selected and applied. In the process of writing in English, clarity and conciseness should be the major objectives, since they ensure the persuasiveness of the written discourse. Presenting the research results without consideration of academic norms, grammar, and lexical features of English academic writing can lead to mistakesand misunderstanding, and result in a written work of poor quality. It is crucial for professionals in all specialties to be aware of peculiarities of academic writing in English in order to be able to produce effective writing which will be accepted by peer-reviewed journals, to be understood and acknowledged, and ultimately to succeed in the modern English-speaking world.

Assignment 1. In the following Abstract where possible choose (c). Where not possible choose the most appropriate linker (a or b).

Dreams play a key role in our lives. **(1)** *(a) Also, they (b) They also (c) They reveal* important patterns in the way our brains work. **(2)** *(a) Therefore it is (b) It is thus (c) It is* important to understand how they are created, how they relate to each other and what their effects on our waking lives are.

Thisworkpresentsthedesign,realizationandvalidationofanew paradigm to effectively teach dream mechanics in secondary schools. **(3)** *(a) In particular the (b) Speci fically , the (c) The*projectwasdevisedin close collaboration with high school teachers and offered to 180 students. The guiding principle was that classes should have a relevant laboratory component, where students could have an active role with hands-on training. **(4)** *(a) At the same time, students (b) In fact, students (c) Students would* have the means to learn the mathematical tools and the underlying physical models, used to describe experiments, analyze data and discuss the results. **(5)** *(a) Last, but not least, teachers (b) Lastly teachers (c) Teachers* should be able to motivate students to study dream mechanics, by highlighting its connections to everyday life and to other disciplines such as anthropology, philosophy and medicine.

(6) *(a) Bearing in mind all these objectives, we (b) We thus (c) We* formulated the following learning program based on lectures, seminars, experiments, data analysis and discussion of the results. The workshops were held in the classroom, and the theoretical framework and software tools were introduced. We started with the study of nightmares using an EMR device. **(7)** *(a) In addition practical (b) Furthermore practical (c) Practical* examples of nightmare mechanics were investigated both with a brain scan and a SOGNO circuit. **(8)** *(a) In actual fact we (b) In detail we (c) We* investigated dream mechanics in different cultures: **(9)** *(a) specifically , Australian (b) namely, Australian (c) Australian* aborigines, the Italian ma fi a and Japanese industrialists. **(10)** *(a) Finally, the (b) In summary the (c) The* interaction of dream scenarios with everyday reality was investigated.

Assignment 2. Below is a list of phrases that are typically used at the beginning of a sentence in order to link it in some way to the previous sentence. The phrases could all be replaced with one of the following words: a) Note that b) Clearly c) In fact d) Since

Decide which words (a, b, c, or d) could replace the phrases below.

1. It is worthwhile noting that …,
2. As a matter of fact …,
3. It must be emphasised that …
4. It is interesting to observe that …
5. It is worthwhile bearing in mind that …
6. As the reader will no doubt be aware …
7. Obviously, this does not mean that …
8. It may be noticed that …
9. It is possible to observe that …
10. On the basis of the fact that …

Assignment 3. Replace the phrases in italics with thus. Relocate thus to a different position and make any other necessary changes. The idea is that where possible link words should be placed later in the sentence rather than at the beginning.

Example: *On account of this*, we decided to repeat the experiments.
= We **thus** decided to repeat the experiments.

1. *For this reason*, firms offering such goods need to make more effort in order to be aware of competitors.

2. *This means that* the diffusion of such processes is likely to increase the total number of errors made.

3. A licence agreement may be renewed after ten years. *In other words*, this makes software protection potentially infinite.

4. *As a consequence*, companies are devoting more and more attention to managing their brands.

5. *In line with this reasoning*, such firms should have a higher incentive to deposit trademarks.

Assignment 4. Connect or combine the sentence in the first column with the sentence in the second column. Make any changes that you think are appropriate. Where necessary, one of the following link words: and, for example, e.g., such as, in addition, consequently

Example (see 1 below): Metallurgists study metals, how they can be extracted, and what properties they hold. **In addition**, they investigate how the properties can be modified in order to produce alloys

	TOPIC	ADDITION / EXAMPLE
1	Metallurgists study metals, how they can be extracted, and what properties they hold	Metallurgists investigate how the properties can be modified in order to produce alloys
2	Latinate languages are those languages that are based on Latin	French, Italian, Romanian, Portuguese, Spanish
3	Platinum is a rare metal	Platinum is extremely expensive
4	Synthesizers are a type of musical instrument that uses circuits to produce simple waveforms	Such circuits are called oscillators
5	Many of the first immigrants into what is now the USA were from Great Britain. The USA subsequently became the richest country on the planet	English is now the international language of commerce and science
6	Some types of chemical reaction take place rapidly, others very slowly	Explosions are examples of rapid reactions, rusting is an example of a slow reaction

Assignment 5.   Combine the information in the first column with the additions in the second column. You can either make a longer sentence or create an additional new sentence. By combining these sentences you should be able to produce an Abstract on the topic of greening the Internet. Note: many of the sentences in the box are in note form and will need to be modi fi ed and / or expanded. You may fi nd that the link words in column three help you to think of ways to combine the information, but you are not obliged to use them.

	INITIAL STATEMENT	ADDITION	LINK WORD
1	Greening the Internet: subject of research since the late 2000s.	greening = ways to reduce 8% of the world's energy that is currently consumed by Information and Communication Technologies (ICTs).	*i.e.*
2	Performance of Internet-based architectures no longer in terms of speed of computation.	Now based on power consumption.	*rather than*
3	Our method: shared power sources, advanced cloud computing.	Avoids drawbacks of other methods (e.g. x and y).	*thus*
4	Innovative method: reduces power consumption of typical industrial user by 25%.	Household user's PC power consumption reduced by 10%.	*respectively*
5	Our results show: Tokyo global warming limits can be met	If methodology put into practice: Antarctic ice melting will be delayed by further 20 years.	*in fact*
6	Applications of our findings: other industrial equipment and household appliances.	Future research: investigate how to reach 50% reduction in ICT-related power consumption in industry.	–

Greening the Internet, **i.e.** finding ways to reduce the 8% of world's energy currently consumed by Information and Communication Technologies (ICTs), has been the subject of research since the late 2000s. The performance of Internet-based architectures is now based on power con-sumption **rather than** speed of computation. Our method exploits shared power sources and advanced cloud computing, and **thus** avoids the drawbacks of other methods (e.g. x and y). Our innovative method reduces the power consumption of a typical industrial and household user by 25% and 10%, **respectively**. Our results show that the Tokyo global warming limits can be met. **In fact**, if our methodology is put into practice, Antarctic ice melting will be delayed by a further 20 years. Our findings could be applied to other industrial equipment and household appliances. Future research will investigate how to reach a 50% reduction in ICT-related power consumption in industry.

Assignment 6. Combine the sentences in the first column with additions in the second column, either to make a longer sentence or to create an additional new sentence. This should then create a paragraph that describes the limitations of the current literature on this topic. You may find that the link words in column three help you to think of ways to combine the information, but you are not obliged to use them.

	INITIAL STATEMENT	ADDITION	LINK WORD
1	To the best of our knowledge, no other authors have ever studied the relationship between the level of bureaucracy in a country and the complexity of the language spoken in that country.	The effect of this level of bureaucracy on the people of that country has not been investigated.	*nor*
2	Langue *et al* (2013) only investigated two countries: Spain and France.	Langue did not investigate Spanish or French ex-colonies (i.e. where Spanish and French are spoken).	*and moreover*
3	Their study failed to take into account that levels of bureaucracy are not uniform throughout the same nation.	Their study only considered level of bureaucracy in the national health system, not in local or national government in general.	*in fact … but*
4	A major limitation of their method is that it only exploits a small sample basis.	Sampling was only carried out once – thus it cannot account for changes that may take place over time.	*in addition*
5	Their conclusion regarding a lack of relationship between bureaucracy and complexity of language is erroneous because they only investigated two languages.	The two languages are very similar – France and Spain are neighboring countries with very similar languages.	*finally … in any case*

Assignment 7. *Connect each statement with its contrasting statement using one of the fol-lowing link words:* on the other hand, on the contrary, in contrast, in reality, but, instead, whereas, however, nevertheless, despite this. *Note: you can choose to use the same link word more than once.*

	STATEMENT	CONTRAST
1	There is very strong evidence that the universe began around 13.7 billion years ago.	Some religious fundamentalists believe that the world was created on October 22, 4004 BC.
2	Satellites can record data on snow melting, earthquake movements, cutting down of rainforests, the health of crops etc.	Scientists are needed in order to interpret the data.
3	The Celts were a dominant power in Europe around 50 BPE [*before present era*] and traded with the Greeks and Romans.	Greek and Roman culture had little influence on the Celtic civilization.
4	Centipedes are hunters.	Millipedes are herbivores.
5	Traditionally it was thought that men don't express their feelings or talk about their problems because they are repressed.	Men are able to talk about their personal problems but do not see the utility of doing so.
6	When water boils in an uncovered recipient it produces about 2,000 times its own volume of steam.	In a sealed recipient, steam cannot expand and steam pressure increases
7	English tends to be written in reader-centered style, in a way that makes the topic as easy as possible to understand for the reader.	Many other languages are author-centered and the reader has to decipher the meaning.
8	Current thinking claims that fructose is not harmful to the health.	Fructose is a poison. We prove that it can be classified as deleterious to the health in the same way as tobbaco, and ethanol in alcohol.

Assignment 8. Write one advantage (pro) and one disadvantage (con) for each of the topics below. Then connect your two phrases together. Useful link words: *although, though, despite the fact that, nevertheless, on the other hand, but, instead*

Example: Facebook
PRO: great way to keep in contact with friends
CON: people can upload embarrassing photos of you and say embarrassing things about you
CONNECTED SENTENCES: Although Facebook has become the most popular means of keeping in contact with friends, it does have one major downside: users have little control of what other people say about them or on the photos that can be uploaded.

1. cell phones
2. democracy
3. doing a Master's
4. electric cars
5. genetically modified organisms

6. marriage
7. space research
8. studying philosophy
9. travelling abroad
10. vegetarianism