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专业英语写作（二） Academic Writing 2

能源与动力工程专业英语
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4 Writing Skills

4.1 Summary Writing

Making summaries is a common activity in everyday life. If a friend asks you about a book you are reading, you do not tell her about everything in the book. **Instead, you make a summary of the most interesting and important aspects.** The same principle applies to summarizing in academic work.

4.1 Summary Writing

The summary may be just one or two sentences, to explain the main idea of the article, and perhaps compare it with another summarized text, or it might be necessary to include much more detail. In other words, **a summary can range from 1–2% of the original to more than 50%: summarizing is a flexible tool.**

4.1 Summary Writing

Complete the list of stages in a successful summary by using phrases from the box.

- i) use your own words
- ii) key points
- iii) important ideas
- iv) order of ideas where necessary

- a) Read the text carefully and check key vocabulary.
- b) Underline or highlight the
- c) Make notes of these, taking care to
- d) Write the summary using the notes, re-organising the
.....
- e) Check the summary to make sure no
..... have been omitted or distorted.

4.1 Summary Writing

Read the following text and compare the summaries. Decide which is best, giving reasons.

Researchers in France and the United States have recently reported that baboons(狒狒) are able to think abstractly(抽象的). It has been known for some time that chimpanzees(黑猩猩) are capable of abstract thought, but baboons are a more distant relation to mankind. In the experiment, scientists trained two baboons to use a personal computer and a joystick. The animals had to match computer designs which were basically the same, but had superficial(表面的) differences. In the experiment the baboons performed better than would be expected by chance. The researchers describe their study in an article in the *Journal of Experimental Psychology*.

French and American scientists have shown for the first time that baboons have the ability to think in an abstract way. The animals were taught to use a computer, and then had to select patterns that were similar, which they did at a rate better than chance.

Baboons are a kind of monkey more distant from man than chimpanzees. Although it is known that chimpanzees are able to think abstractly, until recently it was not clear if baboons could do the same. But new research by various scientists has shown that this is so.

According to a recent article in the *Journal of Experimental Psychology*, baboons are able to think in an abstract way. The article describes how researchers trained two baboons to use a personal computer and a joystick. The animals did better than would be expected.

4.2 Argument

Study the organization of the following paragraph:

Currently, roads are often congested, which is expensive in terms of delays. It is claimed that building more roads, or widening existing ones, would ease the congestion. But not only is the cost of such work high, but the construction process adds to the congestion, while the resulting extra road space may encourage extra traffic. Therefore constructing extra roads is unlikely to solve the problem, and other remedies(处理方法), such as road pricing or greater use of public transport, should be examined.

a)	Problem	<i>Currently, roads are often congested, which is . . .</i>
b)	Solution A	<i>It is claimed that building more roads, or widening . . .</i>
c)	Argument against solution A	<i>But not only is the cost of such work high, but . . .</i>
d)	Solutions B and C	<i>. . . other remedies, such as road pricing or greater use . . .</i>

4.2 Argument

The same ideas could be presented to arrive at a different conclusion:

Currently, roads are often congested, which is expensive in terms of delays. It is claimed that building more roads is costly, increases congestion and will encourage extra traffic. This may be partly true, but the alternatives (替代方案) are equally problematic. Road pricing has many practical difficulties, while people are reluctant (不愿意) to use public transport. There is little alternative to a road building programme except increasing road chaos.

Problem	<i>Currently, roads are often congested, which is . . .</i>
Solution A	<i>building more roads . . .</i>
Arguments against solution A	<i>It is claimed that building more roads is costly, increases . . .</i>
Solutions B and C and arguments against	<i>Road pricing has many practical difficulties, while people are . . .</i>
Conclusion in favour of solution A	<i>There is little alternative to a road building programme . . .</i>

4.2 Argument

Use the following points to build an argument in one paragraph:

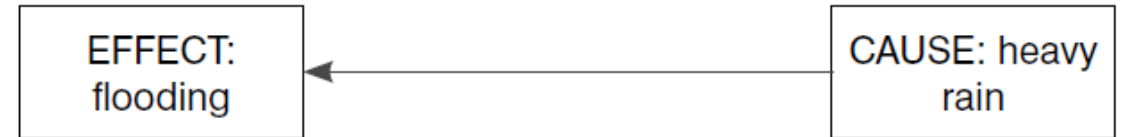
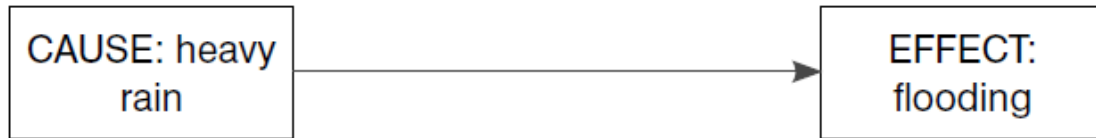
Topic:	University expansion
Problem:	Demand for university places is growing, leading to overcrowding
Solution A:	Increase fees to reduce demand
Argument against A:	Unfair to poorer students
Solution B:	Government pays to expand universities
Argument against B:	Unfair to average taxpayer who would be subsidising the education of a minority who will earn high salaries
Conclusion:	Government subsidises poorer students

(资助)

Demand for university places is currently growing, which frequently leads to overcrowding of student facilities. **It has been argued that** fees should be increased to reduce demand for places, **but** this would discriminate against students from poorer families. **Another proposal is** for the government to pay for the expansion of universities, **but against this** is the view that this would unfairly benefit the minority who in any case go on to earn higher salaries. **A fairer solution** might be for the government to subsidize the fees of the poorest students.

4.3 Cause and Effect

The relationship between two situations can be shown in a variety of ways:



Heavy rain *causes* flooding.

Heavy rain *leads to* flooding.

Heavy rain *results in* flooding.

Heavy rain *produces* flooding.

Flooding *is caused by* heavy rain. (note use of passive)

Flooding *is produced by* heavy rain.

Flooding *results from* heavy rain.

4.3 Cause and Effect

It is also possible to use conjunctions (连词) which demonstrate cause and effect.

Cause	Effect
because (of)	so
since	therefore
as	consequently
owing to	which is why
due to	

Because it rained heavily, the flooding was severe.
(because + verb)

The flooding occurred *because of* days of heavy rain.
(because + noun)

As/since it rained heavily, the flooding was severe.
(conjunction + verb)

Owing to/due to the heavy rain the flooding was severe.
(conjunction + noun)

(also: Owing to it raining . . .)

It rained heavily for days, *therefore* the flooding was severe.
(used in mid-sentence)

4.3 Cause and Effect

Decide whether the following are particular or general, then complete them with a suitable verb or conjunction.

- a) Childhood vaccination leads to/results in
reduced infant mortality.
- b) Because of/Owing to/Due to the cold
winter hospital admissions increased.
- c) Printing money leads to/causes/results in/produces higher
inflation.
- d) The summer was extremely dry, therefore/consequently/which is why
. many trees died.
- e) In 2003, falling sales . . . led to/resulted in
. the company closing two factories.

4.4 Cohesion 衔接

Cohesion means linking phrases together so that the whole text is clear and readable. It is achieved by several methods, such as the use of conjunctions.

Another is the linking of phrases and sentences with words like *he*, *they* and *that* which refer back to something mentioned before:

←
Jane Austen wrote six major novels in her short life. They deal
←
with domestic drama in middle-class families.

4.4 Cohesion 衔接

Examples of reference words and phrases

Pronouns	he/she/it/they
Possessive pronouns	his/her/hers/their/theirs
Objective pronouns	her/him/them
Demonstrative pronouns	this/that/these/those
Other phrases	the former/the latter/the first/the second

4.4 Cohesion 衔接

Read the following paragraph and complete the table.

Jenkins (1987) has researched the life cycle of new businesses. He found that they have an average life of only 4.7 years. This is due to two main reasons; one economic and one social. The former appears to be a lack of capital, the latter a failure to carry out sufficient market research. Jenkins considers that together these account for approximately 70% of business failures.

Reference	Reference word/phrase
Jenkins	<i>he</i>
new businesses	<i>they</i>
average life of only 4.7 years	<i>this</i>
one economic	<i>the former</i>
one social	<i>the latter</i>
the former, the latter	<i>these</i>

4.5 Comparison

The two basic comparative forms are:

The Pacific Ocean is *larger* than the Atlantic.

His work is *more interesting* than hers.

one-syllable
单音节

- a) *-er* is added to one-syllable adjectives (*slow/slower*) and two-syllable adjectives ending in *-y* (*easy/easier*).
- b) *more* is used with words of two or more syllables.

careful/more careful quickly/more quickly

However, there are some two-syllable words that can use either form:

simple/simpler/more simple

4.5 Comparison

Comparisons can be made more exact by using *slightly, much, considerably, far* or *significantly* before the comparative:

Dickens' novels are *considerably longer* than Austen's.

The new Mercedes is *slightly more economical* than the old model.

4.5 Comparison

Note the variety of forms possible:

German letters are more expensive than French (ones/
letters). (least formal)

Letters in Germany are more expensive than (those) in
France.

The cost of sending a letter is higher in Germany than in
France. (most formal)

(*High/low* are used for comparing abstract concepts such as
rates.)

4.5 Comparison

Note the variety of forms possible:

Ones can replace the noun when used with an adjective:

German letters are more expensive than Japanese *ones*.

But not in combination with a noun:

Family cars are cheaper than sports cars. (not sports *ones*)

4.5 Comparison

More/less, the most/the least (followed by adjective), the most/the fewest (related to number)

Divorce is *less common* in Greece than in Britain.

The School of Education offers *the most modules*. (more than others)

The most crowded country in Europe is Holland.

NB Superlatives (*most crowded/least visited*) must be defined, e.g. *in Europe/in 1996*.

4.6 Definitions

In academic writing, definitions are normally needed in two situations:

In introductions, to clarify a word or phrase in the title.

More generally, to explain a word or phrase which may be either very technical (and so not in normal dictionaries), very recent, or with no widely agreed meaning.

Word	Category	Detail	Use
<i>A lecture</i>	is a formal talk	given to a large group,	often used for teaching.
<i>An assignment</i>	is a task	often given to students	for teaching or assessment.

4.6 Definitions

Insert suitable category words in the following definitions.

- a) A *barometer* is a scientific ~~instrument/device~~ designed to measure atmospheric pressure.
- b) *Kidneys* are ~~organs~~ that separate waste fluid from the blood.
- c) A *multi-national company* is a business ~~organisation/corporation~~ that operates in many countries.
- d) *Reinforced concrete* is a building ~~material~~ consisting of cement, sand and steel rods.
- e) *Bullying* is a pattern of anti-social ~~behaviour~~ found in many schools.
- f) *Recycling* is a ~~system/process~~ in which materials are used again.

4.7 Discussion

Many essay titles require the writer to examine both sides of a case, and to conclude by coming down in favor of one side. These may be called ‘discussion’, ‘for and against’ or ‘argument’ essays. For example:

- a) School uniforms – a step forward or a step back?
– discuss.
- b) Discuss the advantages and disadvantages of state control of industry.

In addition, longer essays often require students to assess the information and ideas they have collected in a discussion section before the conclusion.

4.7 Discussion

Many essay titles require the writer to examine both sides of a case, and to conclude by coming down in favor of one side. These may be called ‘discussion’, ‘for and against’ or ‘argument’ essays. For example:

Discussion vocabulary

+	-
benefit	drawback
advantage	disadvantage
a positive aspect	a negative feature
pro (informal)	con (informal)
plus (informal)	minus (informal)
one minor benefit of school uniforms is . . .	a serious drawback to state control is . . .

4.7 Discussion

Presenting your case.

It is better to use impersonal phrases rather than 'I think':

It is widely believed that young children need to be with their mothers . . .

Most people consider that fast food is very convenient . . .

It is generally agreed that school uniforms develop a group identity . . .

It is probable/possible that fast food will become more acceptable . . .

This evidence suggests that most children benefit from nurseries . . .

4.7 Discussion

Presenting your case.

However, if you want to present a minority point of view, you can use the following:

It can be argued that children benefit from a diet of hamburgers.

It has been suggested that school uniforms make children more rebellious.

Some people believe that nursery education damages children.

4.7 Examples

When writing essays it is often better to support statements by giving examples. Compare the following:

- a) Many plants and animals are threatened by global warming.
- b) Many plants and animals are threatened by global warming. In southern Britain, *for example*, the beech tree may become extinct within 30 years.

The second sentence provides concrete details of a plant species, an area and a time scale to support the main statement.

4.7 Examples

Phrases for introducing examples include:

Many departments, *for instance/for example* engineering, now offer foundation courses.

(note use of commas)

A few courses, *such as/e.g.* MBA, require work experience.

Many universities, *particularly/especially* UK ones, ask overseas students for IELTS scores.

(note the focus)

Some subjects are heavily oversubscribed. *A case in point* is medicine.

(for single examples)

4.8 Generalizations 概括

In written work generalizations are very useful because they can be used to present complex ideas or data in a simple form which is easy to understand and remember:

Large companies can offer better career opportunities.

Language is an important means of communication.

4.8 Generalizations 概括

Compare the statements on the data in the table below.

- a) 56.2% of British smokers are women.
- b) The majority of British smokers are women.

UK smokers by gender

Men	Women
43.8%	56.2%

The first sentence is more accurate, but the second, which contains a generalization, is easier to understand.

However, using generalizations does involve a loss of precision, so the writer must judge when they can be used safely, and when it is better to give the full data.

4.8 Generalizations 概括

There are two ways of making a generalization:

- a) Using the plural: Computers are useful machines.
- b) Using the singular + definite article: The computer is a useful machine. (less common/more formal)

It is better to avoid absolute phrases such as *cats are cleverer than dogs*. Instead use more cautious phrases such as *cats tend to be cleverer than dogs* or *most cats are more intelligent than dogs*.

4.8 Generalizations 概括

Overgeneralizing

This means making statements which are too simple or inaccurate. For example, using income figures from the table below, a writer might claim:

People were much richer in 1999 than 20 years earlier.

This ignores inflation over the period. It is more accurate to say:

Average incomes in 1999 were nearly four times higher than in 1979.

Changes in key economic indicators in the UK, 1979–1999

Britain	1979	1989	1999
Inflation rate	13.4%	7.8%	3.4%
Interest rate	12%	13.7%	5.5%
Unemployment	4.1%	6.1%	4.6%
Average income	£5,000	£11,700	£19,000
Average house price	£19,800	£61,500	£68,300

a) Between 1979 and 1999, the worst period for unemployment was 1989.

Unemployment in 1989 was higher than in 1979 or 1999.

b) Inflation fell steadily for 20 years after 1979.

Inflation was higher in 1979 than in 1989 or 1999.

c) There was a dramatic rise in house prices in these two decades.

House prices rose dramatically between 1979 and 1989.

d) Interest rates peaked in 1989.

Interest rates were slightly higher in 1989 than in 1979, and were much lower in 1999.

4.9 Opening Paragraphs

It is often difficult to begin writing an essay, but, especially in exams, hesitation can waste valuable time. **The first few sentences need to be general but not vague, as they set the tone for the rest of the essay.** The subject can be introduced by giving some background information:

In recent years the internet has become an important tool of academic research.

There is increasing interest in the use of wind power to produce electricity.

These statements tend to consist of:

Time phrase	Topic	Development
<i>In recent years</i>	<i>the internet</i>	<i>has become an important tool of academic research.</i>
<i>There is an increasing interest in</i>	<i>the use of wind power</i>	<i>to produce electricity.</i>

These generalisations can be followed by further information or examples:

In recent years the internet has become an important tool of academic research. Students and teachers find it convenient, accessible and up to date.

There is increasing interest in the use of wind power to produce electricity. In north Wales, for example, one wind farm generates enough power to light 100,000 homes. Wind power is a renewable resource which does not produce carbon dioxide.

4.9 Opening Paragraphs

It is important to begin an essay with remarks that are general but also accurate and clear.

Decide which of the following are suitable (essay titles in brackets):

- a) (Do newspapers have a future?)

Newspapers are facing increased competition from other media such as television and the internet. Young people often prefer to get information from electronic sources, which can be updated more frequently.

acceptable

4.9 Opening Paragraphs

It is important to begin an essay with remarks that are general but also accurate and clear.

Decide which of the following are suitable (essay titles in brackets):

- b) (Is public concern about crime justified?)

Crime is increasing everywhere, and this worries many people. Nobody can agree on a solution to the problem.

too vague

4.9 Opening Paragraphs

It is important to begin an essay with remarks that are general but also accurate and clear.

Decide which of the following are suitable (essay titles in brackets):

- c) (GM foods can feed the world – discuss.)

In the past twenty years genetically modified (GM) crops have become a source of major controversy. Both farmers and consumers are divided on questions of health and environmental safety.

acceptable

4.9 Opening Paragraphs

It is important to begin an essay with remarks that are general but also accurate and clear.

Decide which of the following are suitable (essay titles in brackets):

- d) (Is quality being sacrificed for quantity in higher education?)

It can be seen that higher education (HE) is changing throughout the world, with more students wanting to enter universities. There are many possible reasons for these changes, but the results are the same.

vague and overgeneralized

4.10 Academic Vocabulary

To read and write academic texts effectively students need to be familiar with the vocabulary generally used in this context. The following are examples of some of the more common items.

Adjective	Noun	Verb
analytical	analysis	analyse
creative	creation	create
correlative	correlation	correlate
definitive	definition	define
evaluative	evaluation	evaluate
generalised	generalisation	generalise
hypothetical	hypothesis	hypothesise
indicative	indication/indicator	indicate
predictive	prediction/predictor	predict
responsive	response	respond
significant	significance	signify
synthetic	synthesis	synthesise
variable	variation/variable	vary

4.10 Academic Vocabulary

The following adjectives are best understood and learnt as opposites:

absolute	relative
abstract	concrete
logical	illogical
metaphorical	literal
precise	vague <i>or</i> approximate <i>or</i> rough
rational	irrational
relevant	irrelevant
subjective	objective
theoretical	practical <i>or</i> empirical <i>or</i> pragmatic

4.11 Confusing Pairs

Study the following sentences.

The storm **affected** large parts of northern France.

An immediate **effect** of the price rise was a fall in demand.

Affect and **effect** are different words which are often confused because they have similar spellings and meanings. However, **affect** is a verb, while **effect** is commonly used as a noun.

4.11 Confusing Pairs

Study the differences between other similar confusing pairs (most common use in brackets).

accept (verb)/except (prep.)

It is difficult to **accept** their findings.

The report is finished **except** for the conclusion.

4.11 Confusing Pairs

Study the differences between other similar confusing pairs (most common use in brackets).

close (adj.)/close (verb)

The town was built **close** to the gold mines.

The library will be **closed** all weekend.

4.11 Confusing Pairs

Study the differences between other similar confusing pairs (most common use in brackets).

compliment (noun/verb)/complement (verb)

Her colleagues **complimented** her on her presentation.

His latest book **complements** his previous research on neurotic behavior.

4.11 Confusing Pairs

Study the differences between other similar confusing pairs (most common use in brackets).

economic (adj.)/economical (adj.)

Sharing a car to work was an **economical** move.

Inflation was one **economic** result of the war

4.11 Confusing Pairs

Study the differences between other similar confusing pairs (most common use in brackets).

its (pronoun)/it's (pronoun + verb)

It's widely agreed that smoking is dangerous.

The car's advanced design was **its** most distinct feature.

4.11 Confusing Pairs

Study the differences between other similar confusing pairs (most common use in brackets).

lose (verb)/loose (adj.)

No general ever plans to **lose** a battle.

He stressed the **loose** connection between religion and psychology.

4.11 Confusing Pairs

Study the differences between other similar confusing pairs (most common use in brackets).

past (noun/adj./prep.)/passed (verb)

Demand has been growing for the **past** five years.

The resolution was **passed** by 12 votes to 7.

4.11 Confusing Pairs

Study the differences between other similar confusing pairs (most common use in brackets).

principal (adj./noun)/principle (noun)

Zurich is the **principal** city of Switzerland.

All economists recognize the **principle** of supply and demand.

4.11 Confusing Pairs

Study the differences between other similar confusing pairs (most common use in brackets).

rise (verb – past tense rose)/raise (verb – past tense raised)

The population of London **rose** by 35% in the century.

The university **raised** its fees by 10% last year.

4.11 Confusing Pairs

Study the differences between other similar confusing pairs (most common use in brackets).

quite (adv.)/quiet (noun/adj.)

It was **quite** difficult to explain her hypothesis.

Everyone needs a **quiet** environment to work effectively.

4.11 Conjunctions

Conjunctions are words and phrases such as *and* or *but* which join parts of a sentence together. There are six main types of conjunctions:

- a) **addition** *Furthermore*, child mortality rates must be examined.
- b) **result** Prices are rising worldwide, *thus* encouraging investment.
- c) **reason** *Due to* the strike today's classes are cancelled.
- d) **time** *Thirdly*, the role of the architect will be reviewed.
- e) **example** Various writers have examined the issue, *for instance* Van Exel (2000).
- f) **opposition** *Although* this study concentrates mainly on peak-time travellers . . .

What is Academic Writing? 英文学术写作的基础五要素

