

**Genre-based Approach to Enhancing Secondary Students' English Writing Ability in Science Subjects**

City University of Hong Kong, Department of English

&

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**Lesson 5: Exploring the introduction sections of research reports**

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|  | ***Task 1: Exploring how introductions are organised*** |

1. Text One (below) is the introduction section of a research report written by a university student. Read the text throughand find where in the text the following pieces of information are located?

1. The purpose(s) of the research.

*Our report will focus on investigating the extent of the waste disposal problem at one institution, the City University of Hong Kong, and on probing the perceptions that students of the university have of the problem and of possible ways to tackle it.*

1. The general area or general issue that the research reported in this article is concerned with.

*In Hong Kong, disposal of waste is a major issue.*

1. The more specific problem or issue focused on in the research.

*Excessive production of waste is leading to the filling up of all available landfill sites.*

1. What research has already been done on the topic?

*Previous scientific reports have focused mainly on collecting quantitative data on the volume of waste generated by different sectors in Hong Kong.*

1. Supporting information relating to the general area or general issue that the research is concerned with.

*According to statistics from the Hong Kong Environmental Protection Department (2019), the average daily quantity of municipal solid waste in 2017 amounted to more than 15,000 tonnes, coming from domestic, commercial and industrial sources.*

1. Supporting information about the more specific problem that the research is concerned with.

*Robson (2017) estimates that Hong Kong’s landfill sites will become full by 2020 and will no longer be able to accept additional waste. In addition, some types of waste, especially those produced by the construction and construction and chemical industries, are non-biodegradable and may release toxic materials into the environment, creating air pollution in the surrounding area. This can result in an increasing risk of respiratory disease.*

2. In what sequence do these six elements of the text occur?

*2, 5, 3, 6, 4, 1*

3. Do you think that the sequencing of these elements is logical?

*yes*

*1. The general area or general issue that the research reported in this article is concerned with.*

*2. Supporting information relating to the general area or general issue that the research is concerned with.*

*3. The more specific problem or issue focused on in the research.*

*4. Supporting information relating to more specific problem that the research is concerned with.*

*5. What research has already been done on the topic.*

*6. The purpose(s) of the research reported in this article.*

4. Can you suggest any other ways on which the elements could be sequenced in this text?

5. Do you think there is anything missing in this text, or any element that ought to be expanded?

*Better to expand the section on previous research, citing some of the research, what sectors they researched and what some of their findings were.*

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| **Text 1** |
| **A Study of Waste Disposal at a Hong Kong University**  **Introduction**  In Hong Kong, disposal of waste is a major issue. According to statistics from the Hong Kong Environmental Protection Department (2019), the average daily quantity of municipal solid waste in 2017 amounted to more than 15,000 tonnes, coming from domestic, commercial and industrial sources.  Excessive production of waste is leading to the filling up of all available landfill sites. Robson (2017) estimates that Hong Kong’s landfill sites will become full by 2020 and will no longer be able to accept additional waste. In addition, some types of waste, especially those produced by the construction and chemical industries, are non-biodegradable and may release toxic materials into the environment, creating air pollution in the surrounding area. This can result in an increasing risk of respiratory disease.  Previous scientific reports have focused mainly on collecting quantitative data on the volume of waste generated by different sectors in Hong Kong. Our report will focus on investigating the extent of the waste disposal problem at one institution, the City University of Hong Kong, and on probing the perceptions that students of the university have of the problem and of possible ways to tackle it.  *\* Below are the references cited in the introduction as they appear in the References section of the report.*  **Reference**  Hong Kong Environmental Protection Department (2019). Monitoring of Solid Waste in Hong Kong - Waste Statistics for 2017. Retrieved from https://www.wastereduction.gov.hk/sites/default/files/msw2017.pdf 01/02/2019  Robson, D. (2017). Hong Kong becomes a monumental waste problem. Retrieved from http://www.bbc.com/future/story/20170427-hong-kong-has-a-monumental-waste-problem |

6. Read through ***text two*** and discuss the following questions.

1. Can you find the same six elements ***(question 1 above***) in this text?
2. Are there more or fewer elements?
3. Are there any differences in the way the elements are sequenced?

*Basically same elements in the same order. But we might consider para.4, which explicitly draws attention to the “gap” in previous research an additional element.*

iv Text two is longer than text one. Which of the elements is expanded most?

*Much more reference to previous research than in text 1.*

v. What is the purpose of paragraph four in Text Two? Could paragraph four be omitted? Would this make the introduction better or worse?

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| **Text 2** |
| **Texting can wait!**  **Introduction**    As technology has improved, the multifunctional mobile phone has become an essential part of many Hong Kong people’s lives. They use mobile phones to connect with each other by texting, calling and using social media applications. However, although mobile phones give a lot of convenience to users, they can affect user reaction times, which can lead to dangerous situations.  According to Reed & Robbins (2008) texting increases a person's visual and cognitive load. Having a conversation on a mobile phone may also increase cognitive load and can narrow the user’s visual scan (Richtel, 2010). Therefore, while using mobile phones, users may be less able to respond quickly and appropriately to sudden events.  Several studies have shown that using smartphones when driving can increase the chance of having an incident. A report by the Government of China indicated that in 2014, 47.2% of road incidents in China were related to the use of mobile phones when driving. Pedestrians using mobile phones can also be at risk. Jehle (2015) reported that users often cannot control complex actions such as walking when they are texting on a mobile phone. Other research has also found that pedestrians using mobile phones have reduced awareness and distracted attention. (Hatfield and Murphy, 2007, Hyman et al., 2010). A statistical analysis conducted at Ohio State University (Richtel, 2010) indicated that from 2006 to 2008 four times more pedestrians visited a hospital emergency room due to phone-related accidents than due to other factors.  Although many studies such as those cited above have been done on the effects of using mobile phones while driving or walking, little information is available on the effect of using a mobile phone on the reaction time of the user in general. Therefore, research in this area is needed.  The purpose of this report is to explore and analyze the impact of mobile phones on user reaction time and to discover whether texting or calling has the greater impact on reaction time.  *\* Below are the references cited in the introduction as they appear in the References section of the report.*  **Reference**  Hatﬁeld, J., & Murphy, S. (2007). The effects of mobile phone use on pedestrian crossing behaviour at signalised and unsignalised intersections. *Accident Analysis and Prevention, 39*, 197–205.  Hyman, I.E., Boss, S.M., Wise, B.M., Mckenzie, K.E., & Caggiano, J.M. (2010). Did You See the Unicycling Clown? Inattentional Blindness while Walking and Talking on a Cell Phone*. Applied Cognitive Psychology, 24*(5), 597-607.  Reed, N. & Robbins, R. (2008). The effect of text messaging on driver behavior: a simulator study. *Accident Analysis And Prevention, 50*, 122-129.  Richtel, M. (2010, January 16). Driven to distraction: Forget gum. Walking and using phone is risky. The New York Times, p. A1.  The Zebra (2015). Stop Texting and Walking: You could hurt yourself. Retrieved from https://www.thezebra.com/insurance-news/762/texting-and-walking/ |

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| Picture 10 | ***Task 2: Exploring Grammar*** |

Please look again at **text 1**:

1. Identify the finite verbs in paragraph one and their subjects.

*This is basic. Unless the students know what we mean by finite verb and subject, it will be difficult to raise their awareness about very many important grammatical features.*

*[A simple explanation if necessary: A finite verb is a verb that is marked for tense and sometimes for number/person and usually has a subject. For example, I talk - she talks - I talked. Normally, you need at least one finite verb to form a sentence. Note that a verb may may be expanded to include more than one word, for example, I talk - I am talking]*

1. What tenses are the verbs in?

*Example: disposal of waste is the average daily quantity of municipal solid waste in 2017 amounted to.*

*Simple present and simple past.*

1. Why are the two tenses different?

*Simple present: identifying a current issue, something which is the case now.*

*Simple past: relating a situation or event within a specific past time (in 2017).*

1. There is one non-finite verb in paragraph one. Which is it?

*coming*

1. How would you need to re-write the text to change it into a finite verb?

…, which comes from … OR This waste comes from …

1. Identify all the finite verbs in paragraph two.

*Better to use the terms “finite verb groups” or “finite verb phrases” if the students are familiar with either of these terms. Note that the prepositions following "prepositional verbs” are here regarded as part of the verb group/phrase.*

*is leading to*

*estimates*

*will become*

*will [no longer] be able to*

*are*

*may release*

*can result in*

1. Which of them begin with modal auxiliaries (modal verbs)?

*“Will” is sometimes included among the modal auxiliaries. It does not matter whether the students identify “will” as a modal auxiliary or a tense auxiliary.*

1. Which verb form (V, V+, V+ed, V+en or V+ing) directly follows the modal auxiliaries? What other verb forms can directly follow modal auxiliaries.

*All modal auxiliaries (as well as the future tense auxiliary “will”) are followed only by V.*

1. Which of the other verbs are in a different tense from the tenses (simple present and simple past) of the verbs in paragraph one. Why are different tenses used?

[Hints: You may need to think about : a.what time is being referred to (past, present or future), and b. what information the clause is giving, e.g. Is it identifying or describing something? Is it about something happening or changing? Or is it about people doing something?]

*is leading to - a verb that represents some kind of change in progress (but not yet completed) normally takes present continuous (present progressive), e.g. It’s getting colder. The noise is growing louder. The fire is heating the water.*

*Will become … refers to a future time (by 2020) when the landfills will be full.*

*Etc*

1. Identify all the finite verbs in paragraph three.
2. Instead of Excessive production of waste is leading to the filling up of all available landfill sites the writers could have written something like*: Because we are producing far too much waste, all available landfill sites are becoming full*. What is the main grammatical difference between the two ways of expressing this content? Why do you think the writers used the first way?

*1st is simple sentence with most content packed within 2 long noun groups (noun phrases). The verb expresses the logical relationship between the two noun groups (phrases).*

*2nd - the content is “spread out” over two clauses (i.e. it is a complex sentence). The logical relationship is expressed by a conjunction.*

*Possible reasons: more formal, more scientific sounding, more concise.*

Now look at ***text 2***:

1. In paragraph two there are three statements about what may happen when people use mobile phones. Two of these statements are reporting what other scholars have said. How do the writers show that they are reporting other people’s statements? How can readers find the original sources of these statements?

*According to Reed & Robbins (2008); (Richtel, 2010)*

1. Paragraph three is all about findings from previous research. In the first sentence, the writers use the reporting verb have shown to introduce their report of a previous finding. What other reporting verbs do they use in this paragraph?
2. Which of the reporting verbs indicate that the reported findings can be accepted as “facts” (i.e. there is no doubt about them)?
3. Which of the reporting verbs suggest the possibility of some doubt?

*indicated that [possible doubt]*

*reported that [no doubt]*

*has also found [no doubt]*

*indicated that [possible doubt]*

1. Can you think of reporting verbs that could indicate even more doubt?

*e.g. claim that, argue that, suggest that, hypothesise that*

1. Why are the reporting verbs in the first and third sentences (*have shown, has found*) in the present perfect tense, while the other reporting verbs are in the simple past tense?

*The first sentence generalises about findings from several previous studies, I.e. studies that were all done at unspecified times before “now” (the time of writing this article).*

*Sentence 3 similarly generalises findings from at least previous two studies, without saying when the studies were done (even though though the publication dates are in parenthesis at the end).*

*The other reporting verbs report research related to a specific time in the past, e.g. in 2014, from 2006 to 2008 and/or a dated publication is the subject of the reporting verb, e.g. Jehle (2015) reported that…In the latter case, simple present would also have been possible.*

1. There is one reported statement for which not enough information is given for the readers to easily check the source of the report. Which one is it?

*A report by the Government of China indicated that*

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|  | ***Task 3: Further exploration of the meanings of different reporting verbs*** |

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| **Verb used** | **What the writer could be trying to signal** |
| states | Wong presents this as a fact, but at this stage I am not signalling whether I believe it or not. |
| argues | Wong puts this idea forward and presents his reasons. At this stage I am not signalling whether I accept his view or not. |
| found | This is a result that comes from research that Wong did. I have no reason NOT to believe it. |
| suggests | Wong says that this could be true. At this stage I am not signalling what I think. |
| points out | Wong presents this as a relevant fact but does not say much more about it. It is probably something that should be obvious or is already well known. |
| concluded | This is what Wong thinks his research shows or means. I have no reason NOT to believe him. |
| claims | Wong presents this as a fact. Other scholars do not agree and he may or may not be correct. |
| hypothesizes | Wong presents this as an idea that may or not be true, and needs to be researched. |

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|  | ***Task 4: Finding Relevant Information*** |

As we have seen, the introduction section of a research report usually includes information about what other people have said about the phenomenon you are researching and about previous research into the phenomenon. It is important that this information comes from reliable sources.

Suppose you are writing an introduction to a report into research about healthy diets (your **diet** is what you usually eat). You have googled “healthy diet” and found the following.

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| Ad. <https://www.noom.com>  **Diet Meal Plans – Get Healthy Again with Noom** |
| <https://www.who.int/news-room/fact-sheets/detail/healthy-diet>**Healthy diet - WHO | World Health Organization** |
| <https://en.wikipedia.org/wiki/Healthy_diet>  **Healthy Diet - Wikipedia** |
| <https://pubmed.ncbi.nlm.nih.gov/32012681/>  **Defining a Healthy Diet: Evidence for The Role of Contemporary Dietary Patterns in Health and Disease** |
| <https://www.nutrition.org.uk/healthyliving/healthydiet/healthybalanceddiet.html>  **A Healthy, Balanced diet – British Nutrition Foundation** |

Here are some comments you might make on these web addresses. Which comment applies to which address?

1. *This looks like a genuine scientific research paper – worth checking. Defin9ng a healthy diet : Evidence for …..*

1. *This is from a source I know. Usually, I find their articles very useful in starting to research any subject, but I should not rely entirely on this source, as it is not possible to know who actually writes the articles. wikipedia*

1. *I think this is a commercial company. They are probably trying to sell something. I had better not rely on their information. Noom*

1. *This sounds like it comes from a reliable source, but actually I have never heard of this organisation. Anyone could use this name. I had better check first before using information from them. British Nutrition Foundation*

1. *This is an organisation that is well respected world-wide and any information it provides is likely to be scientifically reliable. WHO*

Later, you check two of the sources mentioned above and find the following pieces of additional information. How does his change your evaluation of the reliability of these two sources?

1. The British **Nutrition** Foundation is a registered charity.

* We provide **impartial**, evidence-based information, resources and training on food and nutrition. ([Find out more here.](https://www.nutrition.org.uk/aboutbnf/whoweare/missionandstrategy.html))
* BNF's vision is *'Everyone can access healthy, sustainable diets*' and it is contributing towards this through its Mission *‘Translating evidence-based nutrition science in engaging and actionable ways’.*
* We do not lobby, endorse any products, engage in food advertising campaigns or allow commercial or political pressure to influence us when publishing or disseminating information.
* We are a founding member of [The Academy of Nutrition Sciences](https://www.academynutritionsciences.org.uk/) - a joint initiative between the [Association for Nutrition](http://www.associationfornutrition.org/) (AFN), the [British Dietetic Association](https://www.bda.uk.com/) (BDA), the [British Nutrition Foundation](https://www.nutrition.org.uk/) (BNF) and [the Nutrition Society](https://www.nutritionsociety.org/home) (NS) - a collective voice for evidence-based nutrition science.

This confirms that the BNF is a bona fide impartial charity that can probably be trusted

2. **Defining a Healthy Diet: Evidence for the Role of Contemporary Dietary Patterns in Health and Disease** Hellas Cena1,2,\* and Philip C. Calder3,4 in Nutrients 2020 Feb, 12(2): 334

*Nutrients* (ISSN 2072-6643; CODEN: NUTRHU) is a **peer-reviewed**, open access journal of human nutrition published monthly online by MDPI.

This confirms that this is a research paper from a peer-reviewed journal, therefore can be trusted.

Vocabulary

The British **Nutrition** Foundation gives advice on what it is good to eat, so what do you thing **nutrition** means?

The BNF say they provide information based on evidence. Their information is not affected by how much money someone gives them, or by what they are trying to sell, or by what someone powerful says, or by what their personal beliefs are, so their information can be called **impartial.** Which of the following phrases is closest in meaning to **impartial** as it is used in this context?

a) comprehensive

b) accurate

c) objective

d) scientific

Your **peers** are people who are of the same age as you, of the same social status as you, or of the same professional status as you. What kinds of people are the **peers** of the two writers of the paper *Defining a Healthy Diet: Evidence for the Role of Contemporary Dietary Patterns in Health and Disease* ?

Why is it a good thing that their paper is **peer-reviewed?**

Now google some key words relating to your own research project. Which sources look as if they may have reliable information? How do you know?

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|  | ***Task 3: Reliability of information*** |

In the following section, you would read through three texts extracted from three different sources and websites. These texts are all related to healthy diet but the sources are of different levels of credibility.

Read the four texts and rank it based on the reliability of information. Consider the following points when evaluating:

1. The aim and purpose of the text.

*Text 3 stated the objective clearly at the end of the text “therefore, our aim was to examine the cross‐sectional relationship between total dietary nitrate and measures of muscle strength and physical function in a large cohort of older Australian women.”*

*Text 5 stated the aim at the beginning, telling the reader the text is about a recent report.*

*Text 6 did the same where it provided a topic sentence “But a few tweaks to your dining habits can go a long way to keeping your skin youthful and your body healthy. The key approach? Eat better.”*

1. The language features, including lexical density, vocabulary and sentence structure.

*Text 3 is obviously very academic and formal with technical vocabulary “inorganic nitrate, nitiric oxide” and sentences that are lexically dense. Nominalization “institutionalization, supplements”*

*Text 4 is simple with an informal tone. Short sentences and easy vocabulary.*

*Text 5 is of middle level of complexity where readers can easily understand the vocab and content. Still some technical terms like “cognitive”*

*Text 6’s title attracts attention since it is a question. The rhetorical question “the key approach? Eat better” also hints it is not very formal. The connection to daily life in “What you put on your plate might affect what you see in the mirror.” Suggests the readers are ordinary people.*

1. Any references to academics, healthcare providers or previous data

*Text 3 mentioned “increasing evidence” and used numbers as evidence “Approximately 80%” “(~400–700 mg)”*

*Text 4 has none*

*Text 5 reports on a study in a journal, and includes references “A recent report in the journal*Neurology*“ “Kang et al., 2005; Morris et al., 2006”*

*Text 6 has 2 professionals “Timothy Harlan, MD. He's assistant professor of medicine at Tulane University School of Medicine” “Andrea Giancoli, MPH, RD. She's a policy analyst for Beach Cities Health District.”*

1. Level of formality and the writer’s tone in the text

*Text 3 is obviously very academic and formal*

*Text 4 is simple with an informal tone*

*Text 5 is also formal, and it reports on a scientific study*

*Text 6 is informal with questions and strategies to attract readers*

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| **Text 3**: *From a scientific journal* |
| Dietary nitrate intake is associated with muscle function in older women Green leafy vegetables and beetroot contain high levels of inorganic nitrate. Approximately 80% of total dietary nitrate intake is derived from vegetables, with the remaining majority being derived from fruit and meat products. There is increasing evidence to indicate that some health benefits of vegetable‐rich diets may be explained in part by higher nitrate intake.  Ingesting dietary nitrate can increase nitric oxide bioavailability through the nitrate–nitrite–nitric oxide pathway. In older populations, acute and short‐term nitrate supplementation can lower blood pressure, reverse vascular dysfunction, and increase brain perfusion of the frontal lobe (involved in executive functioning). Short‐term physical performance benefits though improved efficiency of mitochondrial respiration and blood flow to active muscle have also been reported in athletic populations. However, most studies reporting positive effects have used high doses of nitrate supplements (~400–700 mg) such as beetroot juice and nitrate salts. These supplements typically provide nitrate at levels that exceed those present in a diet rich in high‐nitrate vegetables.  A healthy diet that includes vegetables is the cornerstone of many public health messages and are often promoted due to the relationship with better overall health, including functional measures. A clear link between poor function and adverse health outcomes, including disability, institutionalization, and mortality exists. Therefore, strategies capable of limiting age‐associated declines in muscle strength and/or physical function could have substantial impact on population health. Therefore, our aim was to examine the cross‐sectional relationship between total dietary nitrate and measures of muscle strength and physical function in a large cohort of older Australian women. |

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| Text four: *From Wikihow* |
| [How to Eat Well As You Age](https://www.wikihow.com/Eat-Well-As-You-Age) Eating healthy is important for your overall well-being at any age, and especially as you get older. A healthy diet can help you live longer, be stronger, ward off illness and age-related diseases, and sharpen your mind. As you age, your dietary needs change and you may be confused about how to boost your health with what you eat. Regardless of your age, you can start making lifestyle changes so you can be in good health as you age. Make sure you are consuming a sensible diet, trying recipes that boost your health, and employing healthy preparation techniques. |

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| Text five: *Article on US gov NIH website* |
| Leafy greens linked with slower age-related cognitive decline A recent report in the journal Neurology found that a diet containing approximately one serving of green leafy vegetables per day is associated with slower age-related cognitive decline.  Dr. Martha Clare Morris and colleagues from Rush University in Chicago and the Tufts Human Nutrition Research Center in Boston followed 960 older adults enrolled in the Rush Memory and Aging Project.  The research team focused on the level of consumption of green leafy vegetables, like spinach, kale, collards, and lettuce, which have been suggested in previous research to have protective factors against cognitive decline (Kang et al., 2005; Morris et al., 2006), and looked at the association with performance on cognitive tests. |

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| **Text six:** *Article from WebMD* |
| **Is Your Diet Aging You?**  What you put on your plate might affect what you see in the mirror. But a few tweaks to your dining habits can go a long way to keeping your skin youthful and your body healthy.  The key approach? Eat better.  "Poor-quality foods, like trans fats, cause inflammation -- and aging is basically a chronic inflammatory state," says Timothy Harlan, MD. He's assistant professor of medicine at Tulane University School of Medicine. "Can you look older because you're eating crap? Absolutely."  For example, eating too much sugar and processed carbohydrates (like pasta, bread, and baked goods) can lead to damage in your skin's collagen, which keeps your skin springy and resists wrinkles, says Andrea Giancoli, MPH, RD. She's a policy analyst for Beach Cities Health District.  What's more, these foods put your overall health on the line. They are tied to diseases like [heart disease](https://www.webmd.com/heart-disease/default.htm) and [diabetes](https://www.webmd.com/diabetes/default.htm), she says.  Other foods, like fruits and vegetables, are good for your skin. |

Most Reliable

Least Reliable

6

5

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You need to collect this handout because next week they will be asked to reconstruct parts of the texts in this lesson without looking back at the texts.

Glossary

**Text 1**

Disposal (廢物處理) *noun:*  The act of getting rid of something, especially by throwing it away.

Municipal (市政的) *adj:* Of or belonging to a town or city.

Domestic (家庭的) *adj*: associated with or belonging to people's homes.

Landfill site (堆填區) *noun*: A place where rubbish is buried.

Respiratory (呼吸的) *adj*: related to the verb to respire, which means “to breathe”

Probe (調查) verb: To try to discover information that other people do not want you to know by asking questions carefully and indirectly.

Non-biodegradable (不可生物分解) *adj*:Unable to decay naturally and therefore is harmful to the environment

**Text 2**

Cognitive load (認知負荷): the amount of information your mind can hold and process at one time

Visual scan (視覺掃描): The area within which you can visually (with your eyes) notice or be aware of what is going on.

Distracted attention (注意力分散): When your attention is distracted, you are no longer paying attention to what you are trying to do or to think about.

Impact (影響) *verb*: To have an influence on something

Reaction time (反應時間): the length of time taken for a person or system to respond to a given situation or event.

**Task 3**

Appropriate (適當的) *adjective*: When we say that something is appropriate, we mean that it is suitable or just right for a certain purpose.

Previously (先前地) *adverb*: When we say that something happened previously we mean that it happened earlier.

Cites (引證) *verb*: To cite something, is to mention it, usually as evidence in support of what you are saying.

Signal **(**信號) *noun*: When we signal some information, we suggest it without talking about it directly.

**Text 3**

Dietary nitrate (硝酸鹽): Compounds that occur naturally in human body and in some foods like vegetables.

Derive (得到) verb: To get something from something else

Indicate (表明) verb: To show or make clear.

Ingesting (攝取) verb: To eat or drink something.

Acute (敏銳的) adj: very good and accurate.

Supplementation (補劑) noun: pills or drinks containing substances people usually get from food.

Vascular (血管的) adj: relating to the tubes that carry blood or other liquids in animals and plants.

Dysfunction (功能失調) noun: a problem or fault in body.

Perfusion (灌注) noun: the act of pouring a liquid or through the tissue of a particular organ.

Mitochondrial (線粒體的) adj: Relating to the small parts of most living cells that contain DNA and RNA.

Cornerstone (基礎) noun: something of great importance that everything else depends on.

Adverse (負面的) adj: having a negative or harmful effect on something.

**Text 4**

Ward off (阻止) phrasal verb: to prevent something unpleasant from harming or coming close to you

Boost (增強) v: To improve or increase something

Consume (吃，喝) v: to eat or drink, especially a lot of something

Sensible (明智的) adj: based on or acting on good judgement and practical ideas

**Text 5**

Cognitive (認知的) adj: connected with thinking or conscious mental process.

**Text 6**

Inflammation (炎) noun: a red, painful, and often swollen area in or a part of body.