

**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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**Lessons 2 & 3: Getting Started**

**Multitasking**

In this project, your group will be investigating people’s ability to multitask. You will first be asked to explore the topic by answering some questions. You will then be guided through the steps you should take to start doing the research.

The tasks in these notes are for lessons 2 and 3. You may also need to do some work by yourself in the time between the two lessons.

VOCABULARY PREPARATION

Read through Task 1 below and find the words that are in bold type. Use these words to complete the following sentences.

1. A \_\_\_\_\_\_\_\_ is a good result you get from something. It can also be used as a verb. Something that \_\_\_\_\_ you is good for you.
2. If you are \_\_\_\_\_\_ with something, you know it well.
3. A \_\_\_\_\_ is a possibility that something bad or unpleasant may happen.

volunteer, participant, benefit ,risk

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|  | **Task 1: *Exploring the topic*** |

Discuss in your group the following questions and keep a note of the answers that you all agree on. Also note any questions you cannot answer so that you can work on them later.

* What is multitasking?
* Discuss some examples of multitasking that your group is **familiar** with.
* What factors can affect a person’s ability to multitask?
* What are the **benefits** of multitasking?
* What are the **risks** of multitasking?
* Do you think that some kinds of people are better at multitasking than others?

VOCABULARY PREPARATION

Read through Task 2 below and find the words that are in bold type. Use these words to complete the following sentences.

1. Someone who is your \_\_\_\_\_\_ is the same as you in some way or equal to you in some way. For example, he or she may be the same age as you or may do the same work as you. A scientist’s ­\_\_\_\_\_s are other scientists, usually those working in the same area of science.
2. \_\_\_\_\_\_ is an uncountable noun that refers to the processes by which humans and all other living things take food into their bodies and absorb it.
3. \_\_\_\_\_\_ is a countable noun. A person’s \_\_\_\_\_\_ is the food that he or she regularly eats.
4. When a book, an article, a film etc. has been \_\_\_\_\_\_, somebody has read it or looked at it and expressed their opinion about it.
5. A person who is \_\_\_\_\_\_ is not involved in a particular situation and should therefore be able to give a fair opinion about it.
6. Information that is \_\_\_\_\_ is likely to be true or correct. A source that is reliable is therefore likely to contain true or correct information.

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|  | **Task 2: *Evaluating online sources*** |

The first step in doing your research is to find out what other scientists have said about your topic and what research has already been done. Much of the information you need will be online, but you must be careful that you take information only from **reliable** sources.

Suppose your research topic is related to **diets** and health. You have googled “heathy diet” and found the following five web addresses.

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| 1. Ad. https://www.noom.com*Diet Meal Plans – Get Healthy Again with Noom* |
| 2. https://www.who.int/news-room/fact-sheets/detail/healthy-diet *Healthy diet -WHO | World Health Organization* |
| 3. https://en.wikipedia.org/wiki/Healthy\_diet *Healthy Diet – Wikipedia* |
| 4. https://pubmed.ncbi.nlm.nih.gov/32012681/ *Defining a Healthy Diet: Evidence for The Role of Contemporary* *Dietary Patterns in Health and Disease* |
| 5. https://www.nutrition.org.uk/healthyliving/healthydiet/healthybalanceddiet.html*A Healthy, Balanced diet – British Nutrition Foundation* |

 Here are some comments you might make about these web addresses without even reading their content. Which comments could apply to which addresses?

1. This looks like a genuine scientific research paper (article) – worth checking. (No. \_\_\_ )
2. This is 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. (No. \_\_\_ )
3. I think this is a commercial company. They are probably trying to sell something. I had better not rely on their information. (No. \_\_\_ )
4. 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. (No. \_\_\_ )
5. This is an organisation that is well respected world-wide and any information it provides is likely to be scientifically reliable. (No. \_\_\_ )

Later, you check two of the sources mentioned above (nos. 4 & 5) and find the following pieces of additional information. Do these additional pieces of information change your evaluation of the reliability of these two sources? Do you think they are more reliable or less reliable than you first thought?

No.4

Here are more details about the paper (article) that this website refers to.

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

And here is what you have found out about *Nutrients.*

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

MPDI is an online publisher of scholarly articles based in Switzerland.

No. 5

This is what the British Nutrition Foundation say about themselves:

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 (AFN), the British Dietetic Association (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.

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|  | **Task 3*: Searching for information about your own topic*** |

Working in your group, use some key words relating to your own research project to find some online sources. Which sources look as if they may have reliable information? How do you know?

Beginning with the sources you have found, try to find information to answer the following questions.

* How do scientists define and describe multitasking?
* What research has been done on the ways people multitask?
* What did the researchers find?
* What research has been done on the risks and benefits of multitasking?
* What did the researchers find?
* What research has been done to find out what kinds of people are best at multitasking?
* What did the researchers find?

Continue looking for information to answer these questions whenever you have time after the lesson. Use not only online sources but also any books and other materials you can find. Bring notes on everything you find to lesson 3 and share the information with your group.

NOTE: Whenever you find a piece of relevant information, take note of it and if it is online, copy the URL and the name of the website. If it refers to a scientific article that has been published, take a note of the writer or writers’ names, the title of the article, the name of the journal as well as the issue number and date of publication. If you find information in a book, make sure you take a note of the book’s title, the writer (or writers), the publisher and the date of publication. Also keep note of the page numbers.

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|  | **Task 4*: Drafting hypotheses and research questions*** |

Working with your group, *draft* (see note below) AT LEAST three hypotheses or research questions for your research.

NOTE: You will often need to *draft* text during this course. *Draft* can be used as a verb or a noun. A draft is an early version of the text that you want to write. For example, you might need to write a first, second, third, fourth and perhaps even fifth draft of each section in your research report. This is normal. No scientist – or any other kind of writer – would try to publish the first draft of a text that he or she has written. Luckily, these days we don’t have to constantly re-write our texts by hand. Using a word processor makes it a lot easier to draft and redraft. You will also need to sometimes share drafts with your classmates or teacher. Please right from the start, do all your drafting in Word or a similar word processing programme and share your drafts using an application such as Google Docs. Your teacher will guide you in this.

VOCABULARY PREPARATION

Read through Task 5 below and find the words that are in bold type. Use these words to complete the following sentences.

1. A \_\_\_\_\_\_ is someone who does something without wanting to be paid or be rewarded for doing it, usually because they feel that it is something worth doing.
2. A \_\_\_\_\_\_is someone who takes part in some kind of activity, for example a competition.
3. \_\_\_\_\_\_ is transitive verb. When you \_\_\_\_\_ someone, you persuade them to join a group, a society or an organization.

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|  | **Task 5*: Preparing to collect data*** |

You need to start collecting data as soon as possible, so make sure you agree at least by the end of lesson three on the methods you will use.

Below is a suggested procedure (set of steps) for collecting data for your project. You do not have to exactly follow this procedure. You may change it or adapt it to fit your hypotheses/research questions, the time you have to collect data, etc. Discuss the procedure in your group and make any changes you think are necessary.

Suggested Procedure:

1. Prepare a list of questionsto gather information about:
* how good people think they are at multitasking;
* how often people multitask;
* what they see as the benefits and risks of multitasking;
* whether they think men or women (boys or girls) are better at multitasking;
* whether they think younger people (e.g. under 30 y.o.) are better than older people at multitasking.
1. Prepare one or two multitasking games. You can design your own games or find some online games, or you can use the suggestions given below. You should try out the games yourself before using them in your study.
2. **Recruit** about 20 **volunteers** (i.e. 4 to 5 for each group member) to take part in your study. Try to get an equal number of females and males or of young people and older people (depending on your hypotheses).
3. For each **participant,** follow these steps.
4. Interview the participantusing the list of questions you have prepared. Either record your interview or keep a detailed record of their answers. Make sure you also keep a record of each person’s gender (male or female), age, etc.
5. Demonstrate the multitasking games to the participant, showing them\* how the games are played.
6. Have the participant play the games in order to measure their\* multi-tasking ability.
7. Repeat this step twice and record the participant’s score on each attempt. Calculate the average score for each participant.

\*NOTE: When referring to “each participant” and “the participant” you might expect to see “him or her” and “his or her”. However, because this is clumsy, many people nowadays prefer to use “them” and “their”, even though “each participant” is singular.

Suggested Multitasking Games

Both these games require participants to process information through the eyes (visually) and through the ears (auditorily).

A: Letters and Numbers

1. Prepare 15 cards, each with one letter and one number (between 1 and 10) written on them.
2. Tell the participants that when you say “letter” and put down a card, they should say whether the letter on the card is a consonant or a vowel. When you say “number” and put down a card they should say whether then number on the card is odd or even.
3. Let the participants try this 5 times, using 5 of the cards. Be careful not to alternate regularly between “letter” and “number” (i.e. don’t say “letter, number, letter, number etc.” so that the participant knows what is coming next, but say something like “number, number, letter, number, letter” etc.)
4. Do the real test with the remaining 10 cards. Lay down a new card roughly every 3 seconds.
5. Keep a record of the participants’ performance.

(See <https://www.youtube.com/watch?v=A3WDrZhkOQU> for an example of this game)

B: Spoken and Written Stories

1. Write a simple short story (in Chinese, if this is your participants’ mother tongue). It should take 20 to 30 seconds to read the story. Write the story on to cards with about 2 sentences on one card.
2. Prepare a different story that takes about the same time to read. Record yourself telling the story.
3. Prepare 5 to 10 questions to test the participants memory of details in the two stories.
4. Put down the cards one by one at a speed that would allow the participants to easily read what is written on them. At the same time, play the recording of the story.
5. Ask the participants the questions and record the number that each participant gets correct.

(See : <https://www.youtube.com/watch?v=txWeSnJBT-M> for an example of this game)

After you have agreed on the final version of the procedure you will use, consider the following questions:

* How many people will each student in your group interview and do the games with?
* What do you need to do to prepare the games?
* How will you record all the results of your interviews and games?
* You will need to finish collecting your data by lesson 9. What is your timetable for collecting all the data?
* Will every student be able to collect data according to this timetable?