A Simple Guide for English Usage for Japanese Graduate Students

Kevin Hamilton

Aloha!

Hello, I am **Kevin Hamilton** from the International Pacific Research Center in Hawaii. This slide presentation came about from my recent experiences teaching graduate students in Japan. In September 2013 I gave a series of lectures on stratospheric dynamics to a graduate class at Hokkaido University. In April-May 2015 I gave a one credit class to graduate students at the University of Tokyo again on the subject of stratospheric dynamics. I enjoyed these lectures and the chance to interact with the Japanese students. However, my lectures were in English and I felt that many of the students were not too comfortable following my lectures for that reason. Now I am back home in Hawaii and have had a chance to think some more about my students' experiences. Of course, being able to follow lectures in English and to write papers in English are important skills for any Ph.D. level scientist.
I even did a little research on the internet into the subject of learning a subject in a foreign language. There are even academic papers written on this subject in "Education" journals as well as some more practical advice available in various internet sites.

This brief presentation is my attempt to distill my thinking and research into a simple guide that might help some Japanese students with the demands of English in their science careers.

One of my lectures at Hokkaido University in 2013

“Classroom Culture”

“Since they do not want to disturb the class, Japanese students often do not ask the questions that they have. …They believe that saying their opinions in front of the class is a form of "showing off“….. Since they are so quiet in the class in this manner, the teacher might wonder whether they understood or not. “

http://elc.byu.edu/elc/teacher/japanesestudents.html

I certainly found that the students in my lectures in Japan were very quiet. It would make the class more productive if students would try to ask questions and interact more with the lecturer.

Generally it would be good for the students to try more interactions with the lecturer so the students get the most possible benefit from the teaching. If you do not try, you will not Get the advantage from the lectures. The is a saying from a famous ice-hockey player that “You miss 100% of the shots you do not take.” **打たないショットは、100%外れる**

ASK THE LECTURER TO EXPLAIN ANYTHING THAT IS NOT CLEAR TO YOU

It is difficult to understand native English speakers because they seem to “talk too fast”. What seems normal speed to a native speaker is extremely fast to most Japanese students. The addition of the complex terms and concepts of science can make learning even more difficult. You can ask the lecturer to **write down** on the blackboard any unfamiliar terms or phrases, so you and your fellow students can see them and connect them to the spoken word.

This advice is adapted from
https://tspace.library.utoronto.ca/bitstream/1807/9901/1/shaffer.pdf

Kondo, David Shinji, and Ying-Ling Yang: "Strategies for coping with language anxiety: the case of students of English in Japan."
English Language Teachers Journal **58**, #3 258-265 (2004)

http://203.72.145.166/ELT/files/58-3-5.pdf

COMPLICATION #1 – Idioms

In English speaking and writing, we use **idioms**. The Japanese language seems to have taken the word **イディオム (**"idomu") directly from English, but the Japanese also use idioms. An example is:

長い目で見る (nagai me de miru)
to look at with long eyes - not decide now, but wait to see what happens later.

An idiom is a phrase (more than one word) that is used in a way to mean something different from the ordinary meaning of the individual words (the meaning you will find in a dictionary).

The problem is that usual English speech uses idioms **very frequently,** and **English speakers often do not realize how many idioms they generally use.** So if you are listening to a lecture In English there may be many idioms, even though the lecturer knows that he should not use idioms for a foreign audience. So if you hear a phrase that sounds very strange just ask the lecturer to explain.

http://www.livinglanguage.com/content/downloads/Idioms.pdf

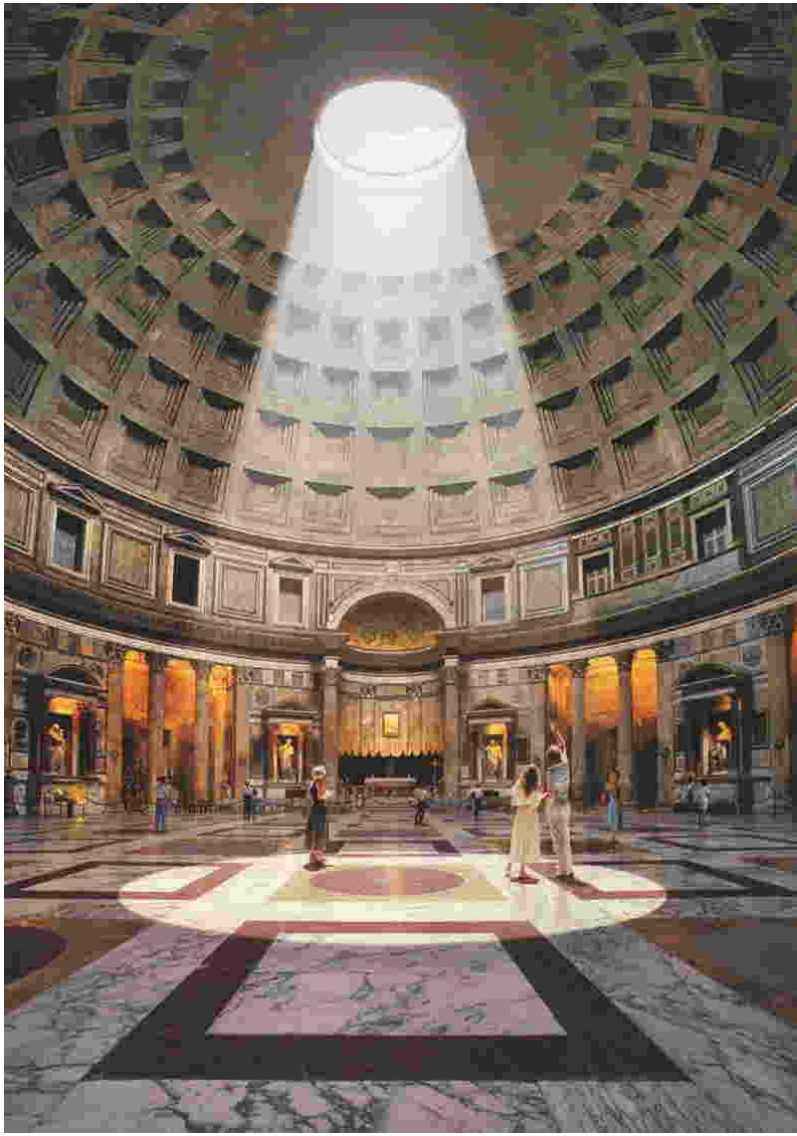
COMPLICATION #2– Latin words

In English speaking and writing, we use words directly from Latin, which is a language no one actually speaks today!

Of course every language has “borrowed” words (外来語) from other languages. English has taken from Japanese terms like “sushi”, “kimono” and “tsunami”. Many more English words originally were loaned from Latin, French and German.

But English also uses words and phases that are still regarded as part of a foreign language. In written English these are usually indicated by *italic font*. So when we use the French phrase “bon vivant” it will be in italic font:

“My friend is a *bon vivant* and enjoys eating at nice restaurants”



Latin Expression	Definition	Example of use
ad hoc	formed or done for a particular purpose only	An *ad hoc* committee was set up to oversee the matter.
bona fide	genuine; real	Only *bona fide* members of the club may use the clubhouse.
circa	approximately	The house was built *circa* 1870.
de facto	in fact; in reality	Although the Emperor was the head of state, the *de facto* ruler of Japan was the Shogun.
ergo	therefore	I think, *ergo* I exist

Adapted from https://www.englishclub.com/vocabulary/fw-latin-phrases.htm

Latin Expression	Definition	Example of Use
erratum *errata (plural)*	error, mistake errors, mistakes	A list of errors in a published work are often referred to as *errata*.
et cetera (etc.)	and more, and so on	We urgently need to buy medical equipment, drugs *et cetera*.
in situ	in the original place	The paintings have been taken to the museum but the statues have been left *in situ*.
inter alia	among other things	The report describes, *inter alia*, computers and communication equipment.
per annum	for each year	The population is increasing by about 2% *per annum*.

Latin Expression	Definition	Example of Use
per capita	for each person	The country's annual income is $4,000,000 Japanese Yen *per capita*.
per se	by itself or by themselves; intrinsically	These facts *per se* are not important.
post-mortem	literally “after death”; informally “conducted at the end of a project or event”	We conducted a *post-mortem* review of the failed experiment.
status quo	the existing or current state	Monarchies naturally wish to maintain the *status quo*.
status quo ante	the state in the past, before recent events	After ending the war the countries agreed to base the borders on the *status quo ante*.

AVOID AMIBGUITY

Scientific lectures and writing should be completely clear (no ambiguity). If an intelligent reader has to re-read any sentence to understand it, the English (or American) attitude is not to blame the reader, but to blame the writer. This may contrast with how this is regarded in other cultures. **The worst problem is ambiguity**. Being ambiguous means **accidentally expressing more than one meaning at one time**, as in: “Women like chocolate more than men.”

This text is adapted from http://www.helsinki.fi/kksc/language.services/AcadWrit.pdf

http://www.livinglanguage.com/content/downloads/Idioms.pdf

Some hints on how to use some possibly confusing English words adapted from

http://www.scribd.com/doc/19531932/How-to-Write-a-Scientific-Review-Paper#scribd

AFFECT, EFFECT - Affect is a verb that means to influence. Effect, as a verb, means "to bring about"; as a noun, effect means "result".

AMONG - used when comparing more than two items.

CARRIED OUT - colloquial; use 'conducted', 'performed' or 'was studied

CHECKED - (The traps were checked). imprecise. Use 'examined' or another more precise word.

DATA - plural. "These data, data were, too few data."

DIFFER FROM, DIFFER WITH - One thing differs from another, you may differ with a colleague

DUE TO - implies causality when only a relationship may be intended. Try 'related to' or, if causality is intended, 'because of'.

GIVEN - (at a given time) - fixed, specified or specific are more precise. Given has numerous meanings.

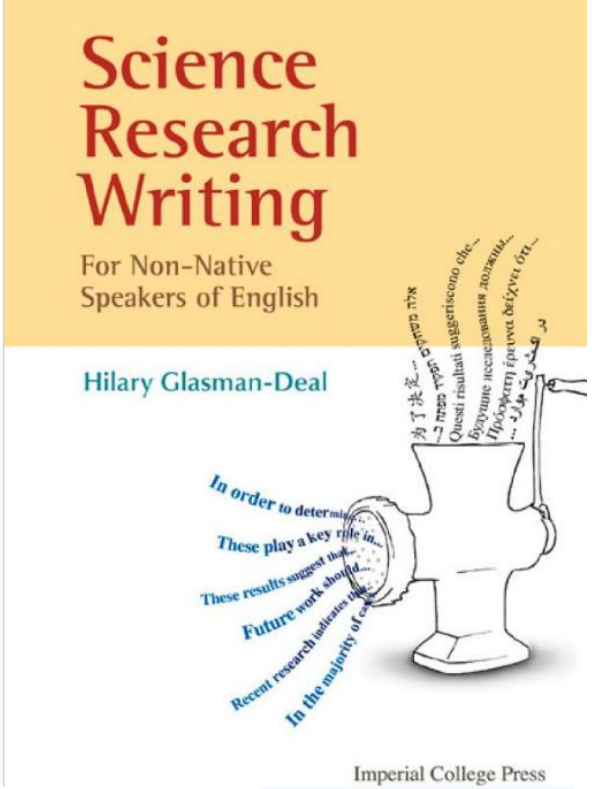
HIGH(ER), LOW(ER) - Commonly used imprecisely or ambiguously for “greater, less, larger, smaller, more, or fewer”. LESS(ER), FEW(ER) - 'less' refers to quantity, 'few' refers to number.

HOWEVER - do not use with another conjunction at the beginning of a sentence or independent clause('However, because...' or 'However, since...').

SAID - (Jones (1978) said that...) – try using “wrote, noted, suggested”

THAT, WHICH - two words that can help, when needed, to make intended meanings and relationships unmistakable, which often is important in scientific writing. If the clause can be omitted without leaving the modified noun incomplete, use which and enclose the clause within commas or parentheses; otherwise use that

TO SEE - replace with 'to determine' or another more precise term



Science Research Writing for Non-Native Speakers of English

By (author): **Hilary Glasman-Deal** (*Imperial College London, UK*)

About This Book | E-Book | Reviews | Supplementary

This book is designed to enable non-native English speakers to write science research for publication in English. It can also be used by English speakers and is a practical, user-friendly book intended as a fast, do-it-yourself guide for those whose English language proficiency is above intermediate. The approach is based on material developed from teaching graduate students at Imperial College London and has been extensively piloted. The book guides the reader through the process of writing science research and will also help with writing a Master's or Doctoral thesis in English.

Science writing is much easier than it looks because the structure and language are conventional. The aim of this book is to help the reader discover a template or model for science research writing and then to provide the grammar and vocabulary tools needed to operate that model. There are five units: Introduction, Methodology, Results, Discussion/Conclusion and Abstract. The reader develops a model for each section of the research article through sample texts and exercises; this is followed by a Grammar and Writing Skills section designed to respond to frequently-asked questions as well as a Vocabulary list including examples of how the words and phrases are to be used.

Sample Chapter(s)

Introduction: How to Use This Book (63 KB)
Unit 1: How to Write an Introduction (301 KB)

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Contents:

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- Writing about Results
- Writing the Discussion/Conclusion
- Writing the Abstract
- Appendices

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Present Simple/Present Continuous

In order to use tenses correctly in the Introduction, you first need to look at the difference between the way the Present Simple tense and the Present Continuous tense are used.

Look at these two sentences:

(a) I live in Beijing.	Present Simple
(b) I'm living in Beijing.	Present Continuous

(a) describes a permanent situation and (b) describes a temporary situation. Because of this, the Present Simple tense is used in science writing to state accepted facts and truths — but what qualifies as an accepted fact or truth is often, surprisingly, your decision. Sometimes the writer considers that research findings have the status of a fact; in that case, s/he can decide to state them in the Present Simple, usually followed by the appropriate research reference. Here is an example

> *One way to toughen polymers is to incorporate a layer of rubber particles[5] and there has been extensive research regarding the rubber modification of PLA.*

Later on, in the Results section, you can even decide to state your own findings this way. Look at these two sentences which describe results:

*(a) We found that the pressure **increased** as the temperature **rose**, which **indicated** that temperature **played** a significant role in the process.*

*(b) We found that the pressure **increases** as the temperature **rises**, which **indicates** that temperature **plays** a significant role in the process.*

Which sentence is 'stronger'? In (a), using the Past Simple tense means that your findings are linked only to your own research, and you do not claim your deductions should be considered as accepted or established facts, or even that another researcher will necessarily get the same results. In (b), using the Present Simple tense means that you believe your findings and deductions are strong enough to be considered as facts or truths. The Present Simple communicates this reliability and your readers will respond to your work accordingly.

Sentence connection

One of the most common errors in writing is failing to connect one sentence or idea to the next. Every time you end a sentence, your reader has no idea what the next sentence is going to do or say. As a result, the space between a full stop and the next capital letter is a dangerous space for you and your reader. Perhaps you stopped for ten minutes after a sentence, and during that time you thought about your work and your ideas developed. Perhaps you turned off your computer and went home. When you start typing again, if you don't share the link between those sentences with your reader, you create a gap in the text which will cause problems.

One of your tasks as a writer is to make sure that gap is closed, so that your reader is carried carefully from one piece of information to the next. Connecting sentences and concepts is good for you too, as it forces you to develop your ideas logically.

One way to connect sentences is to **overlap**, meaning to repeat something from the previous sentence:

> *The pattern of inflammation during an asthma attack is different from that seen in stable asthma. In **stable asthma** the total number of inflammatory cells does not increase.*
>
> *One way to toughen polymers is to incorporate a layer of rubber particles. As a result, there has been extensive research regarding the **rubber** modification of PLA.*

Another way is to use a **pronoun** (*it, they*) or **pro-form** (*this method, these systems*) to glue the sentences together:

> *Many researchers have suggested ways of reducing cost without affecting the quality of the image.* ***These methods*** *rely on data structures built during a preprocessing step.*
>
> *On the basis of these criteria it then describes the preparation of a set of polymer blends using PLA and a hydrocarbon rubber (PI).* ***This combination*** *of two mechanistically distinct polymerisations formed a novel copolymer in which the incorporation of PI significantly increased flexibility.*

The third way is not to finish the sentence at all, but to join it to the next sentence with a **semicolon** or a **relative clause** (a 'which' clause). Joining sentences with a semicolon works well when two sentences are very closely related and one of them is quite short:

> *The procedure for testing whether components are operationally safe usually takes many hours; this means that tests are rarely repeated.*
>
> *It has received much attention over the past few decades due to its biodegradable properties,* ***which*** *offer important economic benefits.*

The fourth way is to use a signalling sentence connector to indicate the relationship between one sentence and the next, or one part of a sentence and the next. You know how useful sentence connectors are from your reading; when you see a word like *therefore* or *however,* you are able to process the next piece of information in the sentence correctly even if you don't understand every word. This is because the sentence connector signals the function of the information in the sentence. The opposite is also true: when the writer does not signal the function of the information with a connector, it is harder for the reader to process the information. Even if the grammar is perfect and every word is correct, the reader still may not be sure what the information is doing (Is it a result of the previous sentence? An example? A cause?), and may interpret it differently from the way the writer intended.

You already use words like *therefore* and *however* and one aim of this subsection is to make sure that you are using them correctly. Another aim is to expand your vocabulary of signalling words, because you can't spend the rest of your writing life using only *therefore* and *however*! Here are some examples of signalling language arranged according to their function. It is not a long list because only those which are commonly used in science writing have been included.

CAUSE

The experiment was unsuccessful _____ *the measuring instruments were inaccurate.*
The experiment was unsuccessful _____ *the inaccuracy of the measuring instruments.*

due to (the fact that)	as
on account of (the fact that)	because
in view of (the fact that)	since

- Be careful when you use *since*; it is also often used to mean 'from that time', so if there's any possibility of confusion, choose a different connector.
- All these connectors can be used at the start of a sentence, even because (Because the measuring instruments were inaccurate, the experiment was unsuccessful).

RESULT

The measuring instruments were calibrated accurately, _____ *the experiment was successful.*

therefore	as a result (of which)
consequently	which is why
hence	so

- Don't start sentences with *so* to communicate a result; it's too informal
- You can sometimes use *then,* for example in sentences like 'If x then y', but it won't work in every sentence, which is why it has not been included in this list.

CONTRAST/DIFFERENCE

British students are all vegetarians, _____ Norwegian students eat meat every day.

however	on the other hand
whereas	while
but	by contrast

- *on the contrary* and *conversely* don't fit into this category because they don't only communicate difference; they communicate the fact that 'exactly the opposite is true', so you can't use them in the sentence above (because *vegetarians* and *meat eaters* aren't opposites, they're just different). However, you could use them in the following sentence: *Some experiments used uncalibrated instruments and succeeded;* ***conversely****, other experiments used carefully calibrated instruments and failed.*
- Be careful when you use *while*; it is also often used to mean 'at that/the same time', so if there's any possibility of confusion, choose a different connector.

UNEXPECTEDNESS

(a) _____ it was difficult, a solution was eventually found.
(b) _____ the difficulty, a solution was eventually found.
(c) It was difficult; _____ a solution was eventually found.

(a) Although	(b) Despite	(c) nevertheless
(a) Even though	(b) In spite of	(c) however
(a) Though	(b) Regardless of	(c) yet
	(b) Notwithstanding	(c) nonetheless
		(c) even so

- There are other connectors with the same meaning, such as *still* and *anyway,* but they are more informal.

ADDITION

We used a batch processing system because it was more effective; _____ it was faster.

in addition	also
moreover	secondly (etc)
furthermore	in the second place (*etc.*)
apart from that/which	what is more,

- *besides* has more or less the same meaning as the items in the list above, but it's more powerful and is therefore better used in more persuasive contexts.

1.2.3 Passive/Active

Students often ask whether they can use **we** in their research articles. In the Introduction you usually say what you will be doing or presenting in the research article. You can use **we** to refer to your research group or team, but do not use it to refer to people or humanity in general. If you are referring to people in general, it's better to use a construction with *It* (*It is known/thought that…*) rather than *We know/think that…* It is also common to use the passive instead of **we**, especially in the central 'report' section (*was measured, was added, etc.*).

In a thesis, you are writing as an individual and you don't have a research group or team. Since you cannot write your thesis using **I,** you will probably write in the passive. Use words like *here* and *in this study* to let your reader know when you are referring to your own work. You can also use a 'dummy' subject to take the place of **I** or **we**:

> ***This article*** *describes an algorithm for clustering sequences into index classes.*
> ***The present paper*** *presents a set of criteria for selecting such a component.*