

Formal academic writing instruction to advanced English learner groups in science and engineering

Steven Taro Suzuki

Waseda University, Faculty of Science and Engineering
suzukitaro@aoni.waseda.jp



Introduction

There may be little argument that the acquisition of formal academic writing skills is paramount for EFL university students of science and engineering. One ESP context that can pose a variety of challenges is teaching academic writing skills to EFL science and engineering university students who are at an advanced level of English proficiency. Advanced here is being defined as TOEIC scores of 900 or greater. Although these students have in some cases, near native English speaking proficiency, many may still struggle in understanding and engaging in formal academic writing. In addition, simply studying the Academic Word List [1] may be insufficient for these students to transform some of their language habits from informal to formal language usage.

This poster looks at a particular course, shares some basic suggestions to give students at the aforementioned level, and offers some classroom activities and materials that will engage and empower students to grasp a clearer understanding of some basic aspects of formal academic writing. The suggestions and activities are designed to enhance both students' analytical and rhetorical skills in an academic environment, and encourages rhetorical consciousness-raising and reflection [2].

Educational Context

The course is a special version of a second-year compulsory English discussion and writing course at Waseda University, Faculty of Science and Engineering. What distinguishes this course is that it is offered by invitation only to students who possess a TOEIC score of 900 or greater. The course is called Concept Building and Discussion 1 (CBD1).

In the spring semester of 2014, 19 students accepted the invitation to the advanced version of CBD1. The student make-up could be divided into two general categories: students who acquired their language skills from living in an English speaking country for several years, and those whose TOEIC scores were mainly attributed to their diligent study of English in Japan.

From the first writing assignment, it was clear in many cases that students struggled to write in a formal academic style even though their compositions were lexically and syntactically correct in general terms. For example, personal pronouns, informal casual language, and slang terms were often used in their writing. In the next section, I will explain a particular approach and method that was used to heighten students' awareness of their analytical and rhetorical skills, which resulted in improved formal academic writing skills.

Approach and Method

The standard textbook, *Concept Building and Discussion: Foundations* [3], was used in the advanced CBD1 course. However, in order to increase the students' awareness of their language use, a more technical approach was used involving supplemental materials. Many of my ideas came from the textbook, *Writing Up Research in Science and Engineering: Foundations* [4]. The following stages explain the process of improving the students' skills in formal academic writing while heightening their analytical and rhetorical awareness.

Stage 1: In class, a short explanation was given on the Problem-Solution structure of writing. Students were then given short sample texts where the sentences were out of order. Students worked together to put the texts in the correct order based on the pattern [4]:

Situation → Problem → Solution → Evaluation

Then some explanation on paragraph structure was given using the pattern [4]:

Topic sentence → Supporting sentence(s) → Conclusion/Transition sentence (optional)

At the end of class, a short academic writing assignment was given. Students were told to write a four paragraph essay on any topic of their choice based on the Situation → Problem → Solution → Evaluation pattern [4]. I collected the papers through digital submission, read them, made personal notes (needs analysis), and then returned them to the students without making any evaluations or comments.

Stage 2: One weakness displayed in the students' early writing assignments was the use of the passive voice. In class, therefore, the students worked on passive voice sentences in both past and present tense. One activity that was used was taking a recipe and changing all of the imperative sentence forms.

Imperative form: Turn the heat on high and bring the water to a boil.

Passive present: The heat is turned on high and the water is brought to a boil.

Passive past: The heat was turned on high and water was brought to a boil.

The students were told that writing in the passive voice is important in some styles of formal academic writing, and that in this course, I wanted them to use the passive voice in their writing as much as possible. I told them that not all academic writing uses the passive voice, and that in the future after they have mastered the passive voice, they could make their own writing decisions using good writing judgment.

Stage 3: In class, I offered some prescriptive advice on stylistic aspects of formal academic writing [4]:

- Avoid using contractions:

The results weren't recorded properly. → The results were not recorded properly.

- Avoid using run-on expressions (and so on, etc.):

Calories can be burned by playing tennis, soccer, etc. → Calories can be burned by playing tennis, soccer, and other sports.

- Avoid starting sentences with "And," "So," and "But." "In addition," "Therefore," and "However" are preferred:

And, gasoline prices are increasing. → In addition, gasoline prices are increasing.

Approach and Method (Cont.)

- Avoid using the personal pronoun "you"
As you can see from the data, smartphone use is increasing. → As can be seen from the data, smartphone use is increasing.
- Try to make your paper more impersonal by reducing the amount of "I" and "we" statements and writing with the passive voice.
I think we need to address this issue. → This issue needs to be addressed.

Stage 4: In class, I advised the students to try to avoid short high frequency verbs whenever possible [4]. Then an activity sheet was given to them and I had them work in groups trying to think of more formal academic alternatives. Below is a sample of the sheet, and some of the answers produced by the students:

High frequency verbs	Academic alternative	High frequency verbs	Academic alternative
stop	cease, terminate	say	report, state
get	obtain, achieve, acquire	need	require
keep	preserve, maintain, retain	end	finish, complete
do	perform, conduct	want	hope, desire
tell	inform, notify, instruct	see	observe, view

We did the same activity for phrasal verbs [4]. Below are some of the answers produced by the students:

Phrasal verbs	Academic alternative	Phrasal verbs	Academic alternative
blow up	explode	go up and down	fluctuate
break up (take apart)	dismantle, disassemble	hand in (turn in)	submit
come out	appear	leave out	omit, exclude
do again	repeat	let go	release
do well	succeed	look at (a problem)	investigate
find out	determine, investigate	look into (a problem)	investigate
fill out (a form)	complete	make up for	compensate
finish up	complete, conclude	not enough	Insufficient, inadequate
get better	improve	point out	highlight
give off	release	put out (a fire)	extinguish
go down (an amount)	decrease	set up	construct, establish
go up (an amount)	increase	start out	commence
go down little by little	gradually decrease	think about	consider
go up little by little	gradually increase	work out (a problem)	determine

Stage 5: In class, students were given various academic texts. They were to analyze and compare these texts with the prescriptive advice and classroom activities in Stages 3 and 4. Following this activity, the students were then to exchange their Problem-Solution papers from Stage 1 with a partner and provide peer feedback, comments, and advice on how the author could improve his or her paper. Then the students were given the assignment to reflect on their first Problem-Solution paper and rewrite it using what they had learned about formal academic writing and the peer feedback they received.

Results and Discussion

Here, I will report on some interesting occurrences and my observations during and after the previously explained process. Unsurprisingly, the students' second Problem-Solution papers were much improved in quality. What was unexpected, though, were some comments I received from some students.

Some of the students reported that they were surprised at their own improvement, and how much they did not know about formal academic writing prior to the course. Some had thought that they already had sufficient knowledge of English and that the course, albeit 'advanced,' would be easy. Some also reported that they could see their own improvement developing while doing the classroom activities and that their view of writing academic texts had changed and evolved. One student disclosed that he found it interesting that he could make so much improvement without teacher comments on his first paper.

The foregoing comments lead me to believe that the approach and method outlined in this poster were effective for three primary reasons. First, the technical approach gave students something specific and concrete to focus on while learning and writing formal academic papers. Second, the students could see measurable qualitative improvements in their writing. Finally, the activities engaged and encouraged students to think and reflect on their own writing. As a result of their increased awareness, the students were able to enhance their analytical and rhetorical skills.

Notwithstanding the effectiveness of the approach and method presented here, it was the first time for me to implement the described process, and there were clearly some areas that could be improved for future use. In future courses, more concrete research designs will be implemented with the idea of measuring the effectiveness of the language teaching approach and method presented in this poster.

References

- [1] A. Coxhead, The Academic Word List. 2010. [Online]. Available: <http://www.victoria.ac.nz/lals/resources/academicwordlist/> [Accessed: 7 Sept. 2014].
- [2] J. M. Swales and C. B. Feak, *Academic writing for graduate students: Essential tasks and skills*, 2nd ed. Ann Arbor, MI: University of Michigan Press, 2004.
- [3] L. Anthony *et al*, *Concept Building and Discussion: Foundations*. Tokyo, Japan: DTP Publishing, 2010.
- [4] L. Anthony, *Writing Up Research in Science and Engineering: Foundations*. Tokyo, Japan: Unpublished manuscript, 2013.