

Writing on Academic Topics: Externalizing Rhetorical Processes in an Intercultural Context

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This paper reviews English-language academic writing pedagogy, learning theories, and cultural rationales to discern problems for Japanese students. One difficulty is the incompatibility of emphases on sentence-level grammatical accuracy and the communicative demands of larger discourse units. Another obstacle is students' unfamiliarity with the function of English-language rhetorical norms. This paper analyzes how this second problem is rooted in cultural contrasts with respect to what constitute necessary and sufficient ways of creating written discourse in Japanese and English. Specific classroom approaches and samples of student writing on science topics are examined to illustrate generic ways of helping students become more fluent EFL writers.

本論は、学術的テーマの英作文およびその学習理論と日本の学生にとっての問題を認識するための文化的根拠を検討するものである。困難の一つは、文レベルの文法的正確さとより大きい談話単位のコミュニケーション上の要求の双方を強調するのが難しいことである。もう一つの障害は、学生が英語のレトリックの規範を知らないことである。この論文の分析は、二番目の問題が、英語と日本語では何が書き言葉の談話を構成するのに必要十分であるかという基準が異なるという、文化的な相違に根差していることを示す。特定の授業でのアプローチと科学的テーマの学生の作文例を検討した上で、学生がより習熟したEFLの書き手になれるようにするにはどのような助力ができるか、一般的な方法を説明する。

For Japanese students composing in English, one of the first problems faced is incompatible emphases. When teachers demand accuracy, students work hard to be accurate, but given the constraints on working memory, their ability to do so is typically limited to small-scale units such as the phrase or sentence. Further, Hattori, Ito,

Kanatani, and Noda (1990) report that Japanese teachers' felt obligation to respond to errors in writing is so time-consuming that they avoid assigning large-scale compositions. Once accuracy is made the focus of classroom activities, moreover, learners pay close attention to explicit rules and attempt to apply the rules. Yet as students monitor their language production, their ability to make and acquire meaning diminishes significantly (Krashen, 1984; Jones, 1985).

The status of errors: Focus on meaning

Nonetheless, since teachers are sticklers for accuracy, we face the continual dilemma of how to treat developmental errors on the part of students in making meaning. Problems of students attending to linguistic features at the expense of spoken communication are offered a partial solution by Nobuyoshi and Ellis (1993); for some speaking errors they suggest "focused communication tasks" in which learners are enticed into more accurate production by way of communication-based requests for clarification. Nobuyoshi and Ellis recognize limits. They question how such tactics apply to morphological errors that have little impact on meaning. Focused communication tasks, however, are suggestive of one way to bridge the accuracy/meaning-making dilemma in EFL composition.

The process approach and academic writing

With respect to writing, questions of over-monitoring, of meaning-making, and of focusing tasks on developmental issues such as learner errors are even more complicated. As noted, when emphasis is placed on linguistic accuracy, the unit-size of the discourse is perforce small in scale. Yamada (1993) reports that most students' EFL writing in high school centers on spelling and grammar while translating from Japanese at the sentence level. Advocates of the process approach to writing would say that these students require opportunities for composing on a more meaningful scale about subjects with which the individual writer can interact engagingly, even personally (Zamel, 1982, 1987; Krapels, 1990; Raimes, 1991). The process approach conceives of the learner's task as an interaction in which a writer creates multiple drafts, each draft providing a chance to "discover" what kinds of meaning might be desirable or necessary to communicate. Rigg (1991) describes such writing opportunities within the context of learners using "whole" language to compose from personal experience.

Critics such as Horowitz (1986) and Silva (1990) point to a disparity between language students writing on personal topics and writing for academic and professional purposes. Silva argues that in addition to process methods, approaches are needed in which writers learn to fulfill the contextual demands of academic subject matter. Japanese college students, such as majors in medicine or other sciences, face the prospects of researching and reporting in English about their fields of study as they proceed to graduate school and assume their professional duties. For these students, the practicality of academic writing seems obvious. With the incorporation of academic subject matter in EFL composition, however, we confront new questions about guiding writers' development as well as the timing, frequency, and method for focusing on developmental errors. Responses to these issues circulate within a matrix of intercultural contrasts and diverse educational experiences.

Contrasts in education and skills application

There are ample indications that difficulties for Japanese college writers result from differences between Japanese- and English-language conventions with regard to rhetoric, education, and cultural orientation. First, in comparison with British and North American educational practices, Japanese students spend less time learning to write in their L1. Hinds (1987) and Mok (1993) note that most Japanese stop studying L1 writing by the sixth grade. Second, many skills Japanese students acquire in learning to write cannot be transferred easily when they begin to compose in English. While there is a paucity of research that pinpoints "immediate practical uses" of contrastive rhetoric (Leki, 1991, p. 137), one useful insight is that rhetorical skills in L1 writing are not readily transferred to the L2. In a study of Japanese college students composing in English, Carson, Carrell, Silberstein, Kroll, and Kuehn (1990) find a weak correlation, at best, between L1 and L2 skills. Third, when Japanese students take up English composition practice, they are typically underexposed to the rhetorical and invention devices they need to become fluent writers. As noted, Yamada (1993) maintains that high school students expend their energies creating grammatically correct translations of sentences. Yamada further asserts that "discourse and rhetorical organization are totally ignored" (p. 115).

Rhetorical contrasts

Of the various intercultural differences between growing up as a native speaker (NS) of Japanese and learning EFL, the most critical are

the rhetorical conventions in Japanese versus those of English. For example, among general commentators, Reischauer avers that in comparison with the English-language bias toward directness, speakers of Japanese "cultivate vagueness" (1988, p. 381). Among observers of written discourse, Hinds (1987) describes such elements as "vagueness" as part of an array of conventions that dispose Japanese rhetoric toward placing responsibility for understanding the meaning of a text with the reader. This is in direct contrast with English-language convention in which the writer assumes responsibility for conveying meaning. Fister-Stoga (1993) traces the influence of classical Chinese rhetoric on Japanese composition and (citing Oliver 1971) itemizes formidable differences with Western norms.

	<i>Western</i>	<i>Asian</i>
Style:	variable, lively	ambiguous
Motive:	self-interest	social harmony
Tone:	animated	unexcited

(adapted from Fister-Stoga 1993, p. 136)

The contrasts between Japanese and English cut more deeply than rhetorical style, motive, and tone. Indirection, suggestion, and silence are not classified as primary elements in English-language discourse, but they are pragmatic forms of eloquence in Japan (Ishii and Bruneau, 1991; Fister-Stoga, 1993). Indeed, silence in the form of ellipses is a distinctive feature of Japanese semantic structure. Discussing spoken ellipses, Lee (1984) indicates that

Japanese words and phrases are often abbreviated into a "head." This results in a degree of linguistic truncation rarely found in other languages. It is exemplified by the much-used expression *domo*, the basic meaning of which is "very [much]," "quite," "somehow." Since *domo* is an adverb it functions at most as a kind of hat or gloves covering the word modified. Its role presupposes that there is a verbal "head" or "hands" to be covered, but the Japanese often cut away the word modified, leaving just the adverb *domo*. (p. 45)

With respect to written discourse, the Japanese *ki-sho-ten-ketsu* form of essay writing consists of an introduction (*ki*), followed by development of the introductory theme and loosely analogous sub themes (*sho* and *ten*), and a conclusion (*ketsu*) in which the essay makes its main point (Hinds, 1983; Loveday, 1986; Fister-Stoga, 1993). What stands out here is how topsy-turvy the form seems in comparison with English-language prose development. It is quite proper, for instance, to introduce one topic

in *ki* and insert a second or even a third topic in the middle sections for the purpose of leading up to an argument fixed on possibly another topic in the concluding *ketsu* section. When we refer to “topic” and “argument,” in fact, we are imposing English-language categories that do not adequately account for elements like pacing and temporal proportion as agents of formal reasoning in the *ki-sho-ten-ketsu* tradition. Nevertheless, of immediate interest are (a) the formatting of multiple “topics” in *ki-sho-ten-ketsu* in contrast with the privileging of a single topic in a well-formed English-language essay; and (b) the emergence of *ki-sho-ten-ketsu*’s “argument” in the concluding section while customarily academic English prose argues from beginning to end.

I draw this contrastive picture to suggest that beyond the questions of Japanese writers’ linguistic accuracy in EFL composition, there are complexities of rhetorical tradition, prior education, and cultural attitudes embedded within rhetoric and education.

Providing writers with appropriate tools

Academic writing in L2 makes new demands on the language learner. From the teacher’s perspective, these entail far more than introducing additional language items such as grammar rules and vocabulary. In reviewing current L2 research, Krapels (1990) offers that learners’ underdeveloped skills in EFL composition are caused more by a lack of competence in writing strategy than in general language. We can further define Japanese students’ lack of competence in terms of their inexperience communicating in academic contexts, a lack of communicative competence of a particular sort.

A primary requirement, then, is to initiate writers to strategies and rhetorical tools in English to apply what they know. A first step, suggested by Mok, would be to highlight contrasts, to “capitalize on the differences in overall organization” between Japanese and English written language (1993, p. 158). Additionally, with respect to thinking and writing in academic contexts, general-education students need practice organizing, writing, and rewriting ideas related to such curriculum-based topics as ethical debate, literary summary, and scientific analysis. Indeed, rhetorical norms and organizational structures for writing about topics like these are what Cummins (1981) identifies as strategies for developing “cognitive/academic language proficiency” (CALP), that is, a communicative competence to exploit discourse conventions of academic disciplines.

Scientific discourse

To illustrate potential benefits of increasing college writers' level of CALP, I'll focus on written discourse in science. Such an approach at first seems counter-intuitive for an instructor of English who has been trained in language and literature, but I find one advantage to basic scientific discourse is that it is unburdened with cognitive abstractions like "irony," "paradox," and so forth. Since basic science writing concerns itself with facts or theories derived from verifiable data, general-education students, science majors, and non-science majors can enjoy reading and writing about nature and scientific discoveries without the intensive preparation with regard to specialized mental constructs and abstractions common even at the beginning level of writing about the arts and social sciences. Also, science topics underpin students' understanding of the world, an enormous advantage for engaging them in the rhetoric and patterns of organization required of fluent writers.

Externalizing the writing process

To summarize, with regard to the intercultural contrasts between growing up as a NS of Japanese and acquiring fluency in EFL composition, college writers' most immediate need is a re-orientation to the preferred rhetorical and invention structures determining the organizational patterns of English academic prose. Re-orientation is the right term here because, as Kaplan (1987) asserts, all rhetorical modes are possible in any language but each language has its preferences. Japanese has rhetorical devices for conveying cause and effect, definition, and the like, but the predominance of particular devices in English-language content and organization requires the EFL writer to become intimate with their various functions in shaping scientific and other academic arguments.

Japanese college writers in this sense are serving a "cognitive apprenticeship," a developmental term coined by Collins, Brown, and Newman (1989) to describe a situation in which students engage in expert practice in order to become experts themselves. To extend the apprenticeship metaphor, the instructor assists students by *externalizing the thinking and writing processes* that comprise the expert's knowledge. For Japanese college students, the know-how of writing can be rendered more explicit by means of instructors' *modeling* assignments that call upon processes of thinking and writing in English and *coaching* writers with hints and reminders. The modeling-a-process perspec-

tive helps establish methodological priorities, foregrounding learners' development.

Methods for modeling and coaching vary depending on the students' level and the instructor's interests. One sound way to craft a methodology is to take note of current research. Carrell's (1987) review of reading research found the following implications for teaching composition: EFL writers need exposure to "top-level rhetorical, organizational structures of expository text," and they need to learn how to select suitable structures in the process of composing, as well as "how to signal a text's organization through appropriate linguistic devices" (p. 54). These findings argue for teaching a rhetoric of invention, and in my case the invention devices that pertain to science: cause and effect, description, definition, and classification. Trimble, identifies these devices as "cohesive ties" and "rhetorical functions," each essential for organizing scientific analysis and "capable of being isolated and studied separately" (1985, p. 69).

A case in point

Working with both literature and science students, I found Trimble's idea of isolating rhetorical functions an excellent point of departure for introducing and reviewing the basic, generative elements of written scientific discourse in English. Trimble suggests, for instance, that classification is simultaneously one of the most essential rhetorical functions in science and one of the most readily understood. Taking Trimble's cue, I had students first discuss easily classifiable topics, sports, hobbies, and cars.

Then students were asked to read aloud a list of "key vocabulary" germane to both the science content and the rhetoric featured in the unit, in this case, classification. To illustrate, we reviewed words like "category," "to distinguish," "specific/general," in order to address exercises that explain and expand the concept of classifying. Students also read aloud "sentence patterns" and examples of "organizing rules" that furnish the linguistic tools that they would employ in their writing. Models of the patterns were reviewed: "Canines can be classified into groups." "The class canine is divided into categories." The introduction of patterns or rules was limited to those necessary to give students a sense of the words and phrases available. From the apprenticeship perspective, when students are provided these linguistic tools, the invention structures that fluent writers use become "externalized."

Before asking students to write original paragraphs using the appropriate patterns, I had them work on preliminary exercises that required

independent thinking and some writing, but simplified the writing task to make the organizing rules more apparent. Ideally, these preliminary exercises would interrelate and, in aggregate, prepare writers for more autonomous and challenging work. In a unit on comparisons and contrasts, three preliminary exercises moved from recognition, to partial- and full-application of organizational patterns. The first exercise had students read sample paragraphs and identify words and phrases that specify comparisons and contrasts; a second exercise required completion of sentences; the third asked students to read raw data about items of comparison and rewrite the data into a paragraph using words and phrases that indicate comparison and contrast.

For purposes of demonstrating the effects of the apprenticeship approach, I'll present work of three students, identified as A, B and C. My purpose is not to display representative or linguistically exemplary items, but to give insights into the feasibility of the approach. A first-day exercise, which had nothing to do with science, was designed to elicit a let's-get-to-know-you response. The writing prompt was, "Write a few things you know about the U.S. or the U.K."

- A: "My knowledge of US is 'dangerous country.'"
- B: "Gun."
- C: "The U.K. is famous for the origin of Pank Rock."

The tentativeness of A, B, and C's responses is illustrative of the reticence of many writers. Their initial responses are more interesting, though, in light of responses to writing prompts later in the semester.

In a review unit that directed students to integrate rhetorical norms related to classifying and describing, the prompt "Write a paragraph in which you classify the general school subjects you like, subjects you have studied or are now studying in school . . . describe one or two courses . . . Use transitions" elicited:

- A: Even though we are studying many subjects, subjects are divided into two groups: practice courses and lecture courses. For example, physical education is divided into practice course. In the physical education class we play volleyball, basketball and so on. Experimental physics is practice course as well. We examine the length of the wave which Hg spectrum has. On the other hand, history or basic geology are divided into lecture courses. We learn the things which happened in many years ago, or we learn the structure of igneous rock, from teacher.

This is not an exemplary paragraph in terms of linguistic accuracy. The writer shows some of the infelicity of his first-day response, "My knowledge of US is...", but I find great promise in the breadth of expression and depth of detail expressed in this paragraph. The potential is obvious—and, here, focused communicative tasks can be best applied. The student can be encouraged to review and revise ideas by means of well-placed communication-based questions from the instructor or, even better, from other students. "How do you examine the Hg wave?" "What other connection is there between history and geology?" Note that these questions are directed to the content of the writing. The goal is to have the instructor or other students provide feedback to the writer as focused communication in order to facilitate the writer's clarifying or discovering meaning in a second draft. [See Oshita (1990) and Shizuka (1993) for details of the benefits of peer feedback in the Japanese EFL context.]

Writer B, whose first-day response was "Gun," comes up with a less sophisticated response, but here as well the potential for focused revision could lead to fuller practice:

B: I study chemistry, English, Chinese, and physics in college. I'm taught in English by American teacher. On the other hand Japanese teacher teach chemistry, physics and Chinese classes. Japanese teachers aren't talkative very much. But American teacher ——. But both Japanese and American are good teacher.

Focused tasks for B might encourage practice in using more organizational structures of classification and description. Plausible questions include: "Besides the fact that they are taught by Japanese, can chemistry and physics be *grouped* in other ways?" "What *types* of things do you do in Chinese and English classes?" "Can you *describe* what your Japanese and American teachers talk about?" In B's case, from the perspective of the apprenticeship model, one can see the underlined rhetorical devices functioning as a technology of invention to help the learner generate clearer thinking and extended writing.

In another teaching unit, students integrated patterns and ideas comparing and contrasting phenomena. The writing assignment recycled a topic, a comparison of *fugu* (pufferfish) and humans, that students worked on earlier. The writing prompt "Japanese pufferfish or *fugu* have a backbone, brain and liver. Human beings have a backbone, brain and liver. The *fugu* and humans have immune systems. But there are many differences! Write a paragraph that compares similarities and contrasts differences between these two species" elicited:

C: Humans resemble fugu that they have a backbone, brain, liver, immune systems. But they are many many differences! The contrast is that fugu live in the sea, but humans live in the land. And fugu swim, but humans walk, run, jump, etc. Moreover fugu can not speak language, but human can speak language. Fugu has two eyes and a mouth. Humans have same. But fugu is covered with scales and has a fin. Humans don't have that. Moreover, breathing way is what Fugu is the gill and humans are the lungs. But the interesting same point is that when the angry makes a swelling cleek!!

C's writing is adventurous, especially in the latter half where he attempts to describe differences in how humans and fugu breathe and how each experiences swelling in the cheeks when "angry." This student text will benefit from some help from the instructor in an encouraging, "coaching" mode. First, the instructor can provide a few hints about unfulfilled patterns and missing words—the missing "in" for the phrase "in that" of the first line, for instance. More important, the teacher can help the student discover well-phrased equivalents of the highly original ideas contained in the last two sentences. The teacher might respond to the last sentence in the form of a question that echoes the idea but employs correct constructions: "Oh, you mean when they get angry they both have swollen cheeks?" Still not perfect, but a lot clearer, here is a second version of C's last three sentences.

C: Fugu are covered with scales and has a fin and a gill for breathing. Humans don't have these things but have lungs for breathing. But the interesting similarity is that when they get angry they make swelling cheeks!

Conclusion

I am suggesting that it can be profitable for general-education students to practice writing in academic subject areas, such as science, in units of one, two, or more paragraphs. Intercultural contexts, especially rhetorical contrasts, need to guide methods both for stimulating the production of student writing and for assessment. In addition, we might consider methods that feature communication-based focused revision tasks, including revision tasks that could involve peer discussion and feedback. Finally, regardless of method, it seems advisable to conceive of the writer's role as that of an apprentice acquiring expertise. A corollary would be that the teacher's function is to externalize processes which will enable the writer to compose meaningfully and, in time, masterfully.

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