
Students' Perceptions of EAP Writing Instruction and Writing Needs Across the Disciplines

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As English for academic purposes (EAP) writing instructors and writing curriculum planners, we need to know the degree to which ESL writing courses have been successful in gauging and providing for ESL students' writing needs across the university curriculum. However, making this determination is difficult because many academic writing requirements may be implicit in the curriculum of the disciplinary course and thus not amenable to ready description by the outsider. Furthermore, we also need to know how much carryover from ESL writing courses occurs with ESL students—that is, what elements of their ESL writing instruction have they found useful and available to them as students in content courses? This article reports on a survey of former ESL students now in university-level content courses that is designed to investigate students' perceptions of the relationship between the writing instruction the students received in ESL writing classes and the actual writing tasks they found in courses across the disciplines. The results of the survey include indications of which writing skills taught in ESL writing courses students found most useful in dealing with the writing demands of other content courses. In their answers to open-ended survey questions, ESL students also described their perceptions of their ongoing writing needs beyond the ESL writing curriculum.

Writing instruction in many English for academic purposes (EAP) and first-year ("freshman") composition classrooms in U.S. universities is based on the assumption that what is taught and learned in these classes will help ESL students function well in their writing tasks across the curriculum. As course developers for ESL students who will continue their education in English-medium institutions of higher education, we hope to predict what students will need and to

include training in those areas in our writing classes. Johns (in press) urges us to keep in mind the importance in ESL writing classes of helping students get ready for assignments in courses across the disciplines by focusing specifically on what is required in the classroom genres assigned in content courses. Yet, we often do not know just how successful we have been in determining future writing needs and preparing students to meet them or how well ESL students are able to use what they have learned from our writing classes in their writing tasks across the curriculum. Attempts to develop information on these questions have come primarily from surveys of university faculty across the curriculum and from a few ESL student surveys.

The bulk of the literature on writing needs for courses across the disciplines consists of surveys of faculty. These studies catalogue types of writing assignments (Bridgeman & Carlson, 1984; Horowitz, 1986b; Keller-Cohen & Wolfe, 1987), types of rhetorical skills required to complete the writing tasks (Horowitz, 1986a; Rose, 1983), and faculty reactions to L2 student writing (Jenkins, Jordan, & Weiland, 1993; Santos, 1988; Vann, Meyer, & Lorenz, 1984). In addition to survey research, a few recent qualitative studies have also begun exploring the question of students' writing needs. Currie (1993) uses participant observation to determine the cognitive operations required to fulfill writing assignments in a business course. Chiseri-Strater (1991) and Walvoord and McCarthy (1990) also take us into classrooms across disciplines for detailed accounts of writing demands and attempts of native English speakers (NESs) to meet those demands.

The question of writing requirements and needs, however, must also take into account the perceptions that writing students have about those requirements and needs. For, as Horwitz (1987) reminds us, what learners believe about what they are learning and about what they need to learn strongly influences their receptiveness to learning. In this sense, what students learn in EAP writing classes is determined to a great extent by what they want to learn. Thus, in addition to surveying faculty on student writing needs, researchers have also questioned students themselves about their perceptions of such issues as the importance of error correction in English class (Leki, 1991) and past and anticipated writing needs at the university and beyond (Kroll, 1979; Ostler, 1980).

In structured interviews of 80 L2 students enrolled at five universities who had completed language courses in intensive English programs, Christison and Krahnke's (1986) respondents identified listening and reading as the most important skill areas in their current academic work (a finding similar to that of Johns, 1981), indicating that they used writing skills only 10% of all their time spent in academic tasks. Despite these students' report of spending only 10% of their time on writing assignments across the curriculum, the importance of

writing to achieving academic success may well be far greater than the amount of time reported devoted to writing would suggest because many courses evaluate students through some form of written text (e.g., essay exams, short-answer essays, research papers). Furthermore, university requirements implicitly support the notion that ability to write well is integral to academic success; often the single institutionally mandated course at the university, for both L2 and NES students, is a term to a year of composition. In a study of children learning English, Saville-Troike (1984) concludes that "the language skill which is most likely to develop . . . [academic] competence is *writing*" (p. 217). Ability to write well is necessary both to achieve academic success and to demonstrate that achievement.

According to a study of L1 writing by Marsella, Hilgers, and McLaren (1992), factors that influenced the way in which writers handled writing tasks across university disciplines included both the way the writing assignment was specified by the professor and the students' past successes with strategies for dealing with academic writing. These factors would clearly apply to ESL students as well. However, it is possible that EAP writing class experiences maybe especially formative because for many ESL students, EAP writing classes are their first, perhaps only, experiences with certain types of writing, particularly longer texts in English. Thus, it seems vital for us to have a sense of how students' experiences in EAP writing courses articulate with their later writing requirements.

The survey results reported here of L2 students in regular curriculum courses adds to the body of information on ESL students' perceptions. In particular, this research focuses on how matriculated ESL students perceived the writing preparation they had received in EAP writing courses and its relationship to their performance of writing tasks in the university.

METHODS

In order to develop an appropriate survey instrument for this study, we conducted a pilot survey which was administered to 33 students at two large state universities in summer 1992. Information from these students' responses allowed us to further refine the survey instrument. The new survey included both open-ended questions and questions with fixed alternatives generated by students' answers to the pilot survey questions. It was then pretested for comprehensibility with a group of 18 students in early fall 1992, and final adjustments were made.¹

¹The survey instrument is available from the authors: c/o Leki, University of Tennessee, Department of English, 301 McClung Tower, Knoxville, TN 37996-04300.

TABLE 1
Content Courses Represented

History	20	Sociology	3
English	5	Accounting	1
Philosophy	5	Animal science	1
Political science	5	Art	1
Religion	5	Business speech	1
Physics	4	Business writing	1
Psychology	4	Communications	1
Biology	3	Geology	1
Business administration	3	Material science	1
Chemistry	3	Speech	1
Geography	3	Statistics	1
Music	3		

All nonnative-English-speaking undergraduate students who were enrolled in core required courses at either of our two institutions were contacted by phone and screened for participation in the research using the following criteria. First, they had to have taken an EAP writing course in the U.S. either in an intensive English program or in an ESL section of first-year composition. Second, they had to be currently enrolled in a university course that required writing.

The resulting subject pool reflects the diversity of required courses across the curriculum (Table 1), the diversity of L1s represented on these two campuses, and—except in the case of first-year students—a group that is relatively balanced across the four undergraduate years (Table 2). The smaller number of first-year students can be accounted for by the fact that many first-year courses do not require students to write.

One hundred twenty-eight students agreed to participate in the survey and were sent survey forms. A week after the requested return time, we followed up with further phone calls and repeat mailings to those who had not yet responded. A total of 77 surveys were returned, a response rate of 60%. (See Babbie, 1983, for standard procedures followed in creating and administering these surveys.)

FINDINGS

How well did our participants feel that EAP writing classes had prepared them for the writing they were being required to do in their content course? The participants were asked to rank the preparation for writing they had received in the EAP writing course on a scale of 1 (*not well at all*) to 5 (*very well*). As Table 3 shows, 48% felt the EAP

TABLE 2
Demographic Characteristics of Subjects (N = 77)

Gender		Academic status		L1	
Female	27	First year	11	Spanish	14
Male	48	Sophomores	22	Arabic	8
Unknown	2	Juniors	21	Chinese	7
		Seniors	21	Japanese	7
		Unknown	21	Korean	4
				Vietnamese	4
				Malay	3
				Unknown	3
				Greek	2
				Gujarati	2
				Hmong	2
				Indonesian	2
				Russian	2
				Turkish	2
				Various	1

course had prepared them well or very well; 29% felt adequately prepared. 17% felt that the EAP course had prepared them either not well or not well at all.

However, among those 14 students who felt un- or underprepared, 3 blamed themselves for not having taken the EAP class seriously, and 4 others gave responses indicating that the EAP writing class did not specifically prepare them for certain technical or specialized forms of writing they were doing in their content courses, such as writing a lab report or a business letter. Taken as a whole, then, these results indicate that, by and large, these ESL students were quite satisfied with the training they received in EAP writing classes. Furthermore, they tended to rate their performance on their writing tasks across the curriculum as generally successful (Table 4), and their final grades (Table 5) in these courses support that perception.

How did survey participants perceive the relationship between success in content course writing tasks and their EAP writing preparation? When asked what they had to do to get a good grade in the course (the results are shown in Table 6), 44% of the responses had to do with controlling course content.

TABLE 3
Preparation Quality Reported for ESL Writing Courses (%)

Not well at all	Not very well	Adequately	Well	Very well	Unknown
4	13	29	39	9	6

TABLE 4
Degree of Success Reported in Content-Course Writing Tasks (%)

Very successful	Successful	Only a little successful	Not Successful
24	55	20	1

TABLE 5
Grades Earned in Content Course (%)

A	B	C	D	Satisfactory	Unknown
20	47	14	1	4	10

These responses included knowing the material, being able to supply relevant details in their written answers, selecting the most important material, and so forth. Next, according to 22% of the responses, professors looked for rhetorical skill—including the ability to organize writing and to write clearly. Third, 16% of the responses indicated that language proficiency (specifically grammar, wording, and using one’s own words) was important. Fourth, 14% of the responses had to do with the importance of thinking skills—the ability to think critically and analytically. The remaining category, miscellaneous, included responses about neatness and length of papers.

Given that most survey participants felt they had been relatively successful in their writing assignments and in their courses in general, we wanted to know what aspect of their EAP writing preparation they perceived to be most helpful in their content-course writing tasks. The results of this question were grouped by categories and are shown in Table 7.

The largest number of responses, 35%, had to do with what we are calling task management strategies. These strategies include managing text (e.g., brainstorming, planning, outlining, drafting, revising, proof-reading), managing sources (e.g., summarizing, synthesizing, reading,

TABLE 6
Reported Requirement(s) for Good Grade on Content-Course Writing Task (%)

Content	44
Rhetorical skills	22
Language proficiency	16
Thinking skills	14
Miscellaneous	4

TABLE 7
ESL Learning Considered Most Important
for Success in Content-Course Writing Task (%)

Task management strategies	35
Rhetorical skills	29
Language proficiency	16
Thinking skills	13
Mechanics	5
Miscellaneous	2

using quotes), and managing research (e.g., library skills, research skills). The next largest number of responses (29%) indicated the importance of rhetorical skills, including organization, transitions, coherence, conclusions, and so forth. Third, 16% of the responses indicated that language proficiency was important, specifically mentioning the importance of grammar and appropriate vocabulary. 13% of the responses had to do with thinking skills—developing and expanding ideas, arguing logically, analyzing, critiquing, and so forth.

It is interesting, too, to note the relationship between the categories indicated as requirements for a good grade and those indicated in Table 6 as being the EAP topics most important for success in content-course writing tasks. In Table 7, the task management strategies learned in the EAP class can be understood as relating most closely to issues of knowing and demonstrating content knowledge in university courses, which were ranked as most important in Table 6. Furthermore, the rank order of other areas is identical in Tables 6 and 7, with similar response percentages. Rhetorical skills were ranked second for both and language skill ranked third, with thinking skills ranking fourth. We would expect this fit between the two questions in a reliable survey instrument. Nevertheless, the correspondence between the questions is important because it gives us a clear picture of the students' perceptions about the relationships between success in university courses and content in EAP courses. As such, it can serve as a general guide for curricula in EAP writing classes.

It is important to note, however, that these two questions are both evaluative in the sense that they ask students to make judgments about their EAP and their content courses. Because of this, they are not necessarily descriptive of what actually happens in content courses—that is, thinking skills may be ranked as the fourth most important area with respect to good grades and success in content courses, but they may also be relatively more important in the actual practice of content-course writing tasks. To find out what writers actually did, we asked them to indicate which skills they did and did not use in their

content-course writing tasks. When responses were rank ordered, a clear pattern emerged. First, the majority of students used most of the skills they learned in EAP writing classes. Even the skill used least—peer response—was mentioned almost 50% of the time. Second, the rank-ordered items divide clearly into the categories that we have already noted in Tables 6 and 7. Of the first seven items in Table 8 (i.e., those that were used the most), four—coherence, transitions, organization, exemplification—have to do with rhetorical skills.

The next four items (8-11) are all thinking skills, relating to ideational issues. Items 12-25 (with the exception of two language proficiency items) are all task management strategies, with items related to managing sources clustered from 14-17. In other words, when ranked by frequency of use, the general order of items is: rhetorical skills first, followed by thinking skills, managing sources, and finally, managing text. Language proficiency and mechanics are interspersed throughout the list. Thus, it is clear both from the perspective of content-course success and of content-course need, that ESL writers see themselves as not only successful in their content courses, but also as having learned skills in their EAP writing instruction that are useful in their content courses.

In addition to feeling that the EAP writing instruction had been beneficial, survey respondents were also able to articulate what they felt had been lacking. In open-ended questions, all participants were asked what they would like to have learned or to have learned better in the writing courses. Respondents mentioned 217 individual items they wished their EAP writing classes had covered or had better prepared them for. These items were then organized into categories which emerged from the pooled data and are displayed in Table 9. The

Table 8
Rank Order of Items Used in Content-Course Writing Tasks (%)

1. Coherence	94	14. Paraphrase	81
2. Transitions	94	15. Summarize	79
3. Organization	92	16. Synthesize	78
4. Punctuation	92	17. Reading response	75
5. Grammar	92	18. Increase vocabulary	75
6. Figure out assignment	91	19. Edit	74
7. Use examples	91	20. Draft/revise	66
8. Think of ideas	88	21. Timed writing	64
9. Expand ideas	88	22. Use library	58
10. Develop ideas	84	23. Connect reading to experience	58
11. Express ideas	84	24. Find a topic	56
12. Outline	83	25. Peer review	49
13. Word choice	82		

TABLE 9
Skills/Strategies Respondents Wished to Have Learned
or Learned Better in ESL Writing Classes (%)

Language skills	31
Task management strategies	28
Rhetorical skills	13
Thinking skills	4
Other (individual items)	24

TABLE 10
Rank Order of Most Frequently Expressed
Specific Needs from ESL Writing Courses (%)

Vocabulary	38
Grammar	23
Greater challenge	18
Organization	18
Greater speed	14
Discipline-specific needs	13

largest percentage of responses indicates a desire for more language skills, with the need for further task management skills a fairly close second.

Within these categories, including the “other” category (24% of responses), the most frequently mentioned individual items are displayed in Table 10.

Here respondents noted a particular need for, again, more language-related training focused especially on vocabulary and grammar.

DISCUSSION

Students’ focus on the need for more language skills maybe initially somewhat disconcerting for writing teachers who believe that language should not be the central emphasis of a writing course. What we find especially interesting about the students’ focus, however, is that, for the most part, when asked what their professors wanted from good papers, many respondents made a point of saying that their professors did not focus on sentence-level features of writing and ignored spelling or grammar errors. Only 16% mentioned language skills as important to doing well in their writing across the disciplines (cf. Table 6). In light of this perceived lack of insistence on the part of their professors for grammatical perfection, how may we understand our respondents’

interest in sentence-level concerns, particularly because their grades and their own evaluations of their writing indicate that these students are doing well in their writing across the curriculum? We see two patterns in the data which shed light on this question. First, respondents mentioned vocabulary more frequently than they did any other single feature of their writing needs (38%). However, a closer look at students' answers to our open-ended questions has led us to conclude that the interest in vocabulary development and in grammatical accuracy (23%) is not primarily related to language conventions or writing decorum. That is, we do not think these students are interested in grammatical accuracy for its own sake, particularly given their assessment that their professors are not concerned with it. Rather, we note, as a second pattern, that the respondents also frequently brought up issues of time, expressing interest in more practice with timed writing in English class and complaining that they could do better if they could read and write faster in English (14%, Table 10). Taken in combination with the otherwise apparently disproportionate interest in language skills, the respondents' concerns about time suggest that the desire for more vocabulary and more grammar expresses a need for more speedy processing of language. As one student says:

1. I wish I had a very good grammar foundations. So then my thought can flow like water (it will not stop). I will save a lot of time to think what grammar rule should go next (34).²

This student perceives herself as being specifically slowed down by the fact that she does not have automatic control of portions of the grammar system.

The dimension of time, displayed as "greater speed" in Table 10, was tabulated on the basis of specific mention in the survey responses of the words *time* or *speed*. The figure of 14% (Table 10) of respondents specifically mentioning the need for greater speed or more time, however, underrepresents the frequency with which the respondents suggested through their answers that time was a factor in their writing needs. Thus, another student says:

2. I wish I had learned phonetics in order to reduce the use of the dictionary (39).

Although time is not specifically mentioned here, we take this students' interest in phonetics to be a desire to eliminate the need to spend time referring to a dictionary, a factor which slows down the student's work. And another says:

²Numbers in parentheses refer to survey identification numbers. Numbers less than 100 refer to students who had taken an ESL section of first-year composition; numbers in the 200s refer to students who had taken EAP writing in an intensive program.

3. I wish I had learned more words and had increased my vocabulary significantly. Sometimes I simply run out of words necessary to express what I am actually thinking. I usually find a substitute word, but often times that word would only be semi-fitting with my thoughts (7).

Even here, a desire for efficiency is implicit. Although this student's expressed dissatisfaction stems from the uncomfortable fit between his thoughts and the words he has to choose from, his search for the "substitute word" after he "run[s] out of words to express what [he is] actually thinking" takes time. The point here is that these students are successful in their writing across the curriculum. Their concerns about language are not the kinds of debilitating obsessions with correctness that the professional literature says characterize poor writers. These students' sense that their lack of control of grammar and of vocabulary is holding them back seems entirely reasonable once we view their interest in language as an efficiency issue.

The heavy concern with language skills indicates that these students clearly regard English classes as places where they expect to learn English, and this at a time when many writing teachers are expanding the content of EAP writing courses to include critical thinking as well as a focus on the heuristic functions of writing. (See, e.g., Benesch, 1993; Gajdusek & vanDommelen, 1993; Raimes, 1991; Spack, 1993; and the introductions to current ESL writing texts, e.g., Leki, 1989; Mlynarczyk & Haber, 1991; Raimes, 1992; Smoke, 1987; Spack, 1990.) Some writing teachers even object to the term *content courses* because it suggests that there is somehow no content in writing courses, that writing courses are strictly skills courses. Yet ESL students persist in trying to turn us back into experts on language, hence their requests for help in increasing their vocabulary and their insistence on having all sentence-level errors pointed out to them. One student in this study expressed his frustration with the mismatch between his own and his teacher's agenda:

4. I wanted my teachers to correct not only the organization of my writing but I also like them to correct my every grammar. How bad it was that I had a grammar teacher in ESL before. He did not correct all my mistakes because he did not want us too much disappointed by getting lots of corrections from the teacher. I told him, if he did that that will make me be confused whether I am right or wrong (259).

In their study of ESL students' responses to written feedback, Ra-decki and Swales (1988) identify one group of students as "resisters," that is, ESL students who resist their English teachers' suggestions about the content of their writing. Resisters apparently considered English teachers to be experts in language but not at all experts in content, in the ideas these students expressed, even though the major-

ity of the resisters were resisting suggestions about content in a non-credit linguistics course, content in which trained ESL teachers might presumably have expertise.

Although many of us explain to students that improving low-level language skills will not make them better writers, our interpretation of our survey results suggests that perhaps we are wrong in our assumptions about why students focus on these concerns. Our students' interest in language may not be a focus misplaced on the superficial instead of on content; rather, their interest in language may be an interest in efficiency and may reflect a desire to cut down on their workload and their work time. It seems reasonable to assume that they would like to become better at language so that they do not have to focus finite cognitive resources on it and can focus instead on the intellectual demands of their education.

Another group of responses in these surveys was more in line with what EAP writing teachers seem to feel is important to cover in writing classes. The task management strategies rubric in Table 9 includes 25 responses (12%) indicating that students would have liked their EAP classes to prepare them, or to prepare them better, for writing which required finding, selecting, and synthesizing sources. One student says:

5. How to pick information for others courses and use it effectively as illustrations in my paper. Such sources include any outside information other than the required text. In another word, how to research, and which or what kind of material is appropriate to use and which are not (41).

Related to the need to learn to deal with multiple sources (again within the task management strategies rubric in Table 9), library skills were mentioned 19 times (9%), including a wish to learn, or to learn better, how to use the library, how to gather materials and decide which of these would be appropriate for their topics, and how to properly reference sources in footnotes and bibliographies.

These requests for more complex writing assignments incorporating multiple sources anticipate responses specifically suggesting that EAP writing classes are too easy; too superficial; not challenging, sophisticated, or college-level enough—the third most frequently mentioned complaint (18% of respondents, Table 10).

6. I wish I had a harder writing class at ESL; there were very big gap between ESL and the freshman's English class (27).
7. I was hardly penalized for grammatical mistakes, such as fragments and comma-splices; one fragment (in an essay) will pull you down a letter grade or so in English 111, 112, and 201. This is a major reason that a "regular" English course comes as a shock for many ESL students (232).

8. I think that the requirement is low (203).
9. ESL writing course should be dealt with the materials closed to the college level courses. It seems there is big gaps between what I did in my ESL writing class and what I have to do in the college level course (61).
10. ESL teachers should not be too friendly or leaniant with foreign students. Teachers should be strict about grammar usage and prohibit talking in their own language (250).
11. I would prefer the class to be more demanding about writing instead of being superficial (236).

One student asked for

12. real . . . writing. Real college professors' interest (252).

Some of these responses, and others, suggest that a focus on more intellectually stimulating and demanding subject matter might better prepare students for their writing across the curriculum. Ten students (13%), for example, felt they would have benefited more from writing on subjects related either to their majors or to material they would study in other college courses than from writing on subjects such as traditions in their countries or differences between the U.S. and their homes.

13. If I had had my major-related subjects in ESL, the transition into the regular curriculum would have been smoother (27).
14. Writing about college/school related subjects Giving the student a general base for the real college writing (252).

In other responses like these, students again expressed a desire for more college-level, more sophisticated vocabulary. This interest in more challenging work may be related to the wish also expressed several times through these surveys for the EAP class to do more to build students' confidence. That is, it may not be enough to encourage ESL students by applauding their writing on topics that are, for instance, interesting but nonacademic. Perhaps they can only build real confidence in their writing if they are challenged and succeed at writing on topics more central to their academic and intellectual lives.

Another theme in these responses was a plea for more individualized consideration both administratively and within the EAP classes. A few students mentioned their disgust at being grouped with ESL students and required to take EAP courses at all. But several students also pleaded for smaller classes so that students could receive more individual attention. One student found group work a poor substitute for conferencing with the teacher:

15. I wish I had had much more time with my teachers on one-to-one basis, since that was the only way I learned what I did (46).

In answer to the question, What did your ESL writing classes fail to prepare you for? one student says:

16. Everything. Most of the material taught in class I already know. The class fail to help me with the part I have trouble with. They didn't find out what the problem I have in English. Instead, they just leave me hanging and give me a passing grade (207).

Finally, many of the students who mentioned a desire for building greater speed in reading and writing raised that issue in relation to writing exams and, in several cases, in relation to short-answer and multiple-choice exams. Unlike their NES counterparts who can quickly read a large number of short-answer and multiple-choice questions, several of these ESL students pointed out the disproportionate amount of time they require just to read these questions. For multiple-choice questions especially, determining the correct answers may depend on realizing a subtle (for L2 students) difference between two words. As one student says:

17. Due to the way that Multiple Questions were designed, (very close together [in meaning]) I had to do better on the essay Questions and I did. Because I could explain what I learned in the format I wanted and knew. I [made] most of my Grade by answering essay questions (8).

Other students made similar comments in relation to the requirements for doing well on a short-answer item. Being unable to retrieve exactly the right vocabulary items or to retrieve them quickly may put these students at a disadvantage. One student finds problems with short essays in general:

18. The short paper essays are my problems In a short essay, I had to use the words that should have very specific meaning. Since my word choice is limited, I have almost always hard time to find those words; therefore, my essays cannot make good arguments but rather be very simple (243).

These comments seem noteworthy because we often think in terms of preparing students for longer essay exams across the curriculum rather than for short-answer items. Yet it may be that L2 student have less trouble with longer essay exams, where they themselves control the language they will use, than with the shorter types of items more dependent on exact vocabulary and on speed.

IMPLICATIONS

As noted above, the majority of the students surveyed here felt that their training in EAP writing courses helped them accomplish their

goals in writing assignments in classes across the curriculum. But they also expressed frustrations with their EAP writing courses in specific areas. We feel it is important and appropriate to question students on their sense of what progress they make and what difficulties they encounter as they move from our writing classes to other writing demands in content courses. In fact, this type of needs assessment is appropriate for all students in any environment. However, when students' sense of their own needs and our sense as professionals of what they need do not match, we need to consider carefully the nature of this mismatch, neither jumping to the conclusion that our courses must be immediately changed to match students' expressed desires nor simply assuming that we must convince students that we know better what will prove to be helpful to them in the development of their academic literacy. In responding to these questions, students did not hesitate to blame themselves for not taking full advantage of EAP writing classes when they took them, citing as reasons experiencing personal problems, not registering for all the classes offered, not taking the classes seriously, not taking enough interest in the classes, not spending enough time on them, having a bad attitude, being "not smart," and even having "a slow mind." Nevertheless, this survey shows these ESL students feeling generally successful in their writing across the curriculum, even in courses not in their majors but rather in core education courses, and yet also acutely aware of their continuing needs.

Their continuing needs, as our respondents perceive and articulate them, revolve primarily around language issues, particularly around vocabulary expansion. The claim has been made (Saville-Troike, 1984) that "vocabulary knowledge is the single most important area of second language competence" (p. 199) in relation to academic achievement. We interpret our respondents' concern with language-related issues, as we have said, in light of the frustration students expressed (a) with the amount of time it takes them to access appropriate lexical and grammatical forms, (b) with the imprecision with which they are forced to express themselves (with words that are "only semi-fitting with my thoughts"), and (c) with the gap between the writing these L2 students are asked to do in EAP classes and the writing they are then required to do in other courses. Because the second largest category of continuing needs which our respondents identified is related to task management strategies (including, in particular, writing from reading—from multiple sources—and use of the library), we are convinced that EAP writing classes need to move away from writing tasks that require students only to tap their own opinions and experiences and toward work that encourages students to integrate those opinions and experiences with external sources of information and argument.

In our survey, 18% of unelicited respondent comments indicated

that EAP writing courses are excessively easy compared to writing required in other courses. In curious contrast, Kroll (1979) reports that in follow-up interviews she conducted with L2 students who had responded to her questionnaire on writing needs, 24 of 35 students "reported having no difficulty with courses in [their] major field and felt that the English course would lower [their] grade record and generally cause [them] a lot of mental anguish, despite the fact that [they] did not 'really need to know English anyway'" (p. 224). This statement suggests that Kroll's respondents experienced more difficulty with their English writing courses than with their writing in other courses. Although our respondents were overwhelmingly pleased with their EAP writing courses, some experienced a jolt as they moved to more demanding writing tasks in courses across the curriculum. We cannot make the claim that this contrast between Kroll's findings and our own reflects a change in EAP writing class curricula, a change brought about by the conversion of many ESL writing teachers to the less punitive, more student-focused attitudes promoted by approaches to writing instruction that became widespread in the 1980s. Many other factors may account for the difference. Nevertheless, it is tempting to ascribe the change in attitude among students to the change in attitude and practice among writing teachers.

How can we account for the gap our respondents perceived between the demands of writing in their EAP classes and the demands of writing in other courses? For undergraduates, writing within the academy is a unique genre, neither the same as the kind of free-flowing personal journal writing favored (often for quite appropriate reasons) in many EAP writing classes nor the same as professional or even graduate student writing within specific disciplinary communities. Despite concerns expressed to the contrary in both the L1 and the L2 literature on initiating students into disciplinary writing, undergraduates are not expected to engage in or contribute to the ongoing professional conversation of geographers, historians, or physicists. The "discourse community" of undergraduate writers, particularly in courses outside their majors, is peculiarly short-lived and is not reproduced elsewhere. It is an educational discourse community affording these students the opportunity to sample knowledge from different disciplines, most of which will never include these students as actual members or even as apprentices.

But undergraduate students do seem to be expected to move beyond "knowledge-telling" forms of writing to "knowledge-transforming" (Bereiter & Scardamalia, 1987), which is believed to be the type of writing that promotes learning (Cumming, in press). If knowledge transforming is the goal, it may be that we are mistaken in assuming

that practicing writing in and of itself is sufficient to prepare students for that knowledge-transforming function, just as it appears that engaging in and becoming fluent in social conversation (i.e., developing communicative competence) appears to be insufficient to promote fluent academic competence (Cummins, 1979; Saville-Troike, 1984). We would argue that topics reported by our subjects such as “Japanese tea ceremony,” “Describe the features of your house,” “American culture versus my own culture,” “A very funny story about how I met my new friends,” “Languages in Switzerland,” or even “Summarize a book we’ve read into 3 pages” (all topics listed by our respondents as assigned in their EAP writing classes) may not require knowledge transformation and therefore may do little to promote ESL students’ participation in the undergraduate academic culture. Furthermore, as Miller (1991) argues about L1 first-year composition classes, this type of assignment, typical of an approach which does not initiate students into a broader intellectual arena, encourages solipsism in students, that is, the impression that even unexamined convictions are self-evidently valid and that intellectual growth is not a goal in writing courses as it is in other courses. Furthermore, if this type of assignment is, as it appears, out of step with the type of work required in other courses in higher education, such assignments are then complicit in the continued marginalization of composition as a field and of composition teachers. Thus, although we understand and endorse the use of such activities as journal writing and the personal essay in their place, these types of writing tasks may not be enough by themselves, may not offer enough intellectual challenge to develop in ESL students the ability, and the confidence in that ability, to make success easier to come by in their academic writing tasks across the curriculum.

Contrary to the notion that writing assignments across the curriculum are vague or underspecified (e.g., Write an 8–10 page paper on the causes of the Civil War), many of these writing assignments are not open-ended but rather quite detailed in specifying purpose, form, procedures, and audience (Currie, 1993; Horowitz, 1986b; Marsella, Hilgers, & McLaren, 1992). This makes generic preparation for these tasks difficult, if not impossible, for the writing class to accomplish. By generic preparation we include both general writing on topics about which students know little and excessively specific forms of writing requiring all students, for example, to write a lab report or a business case study. What does seem reasonable for students like those responding to this survey is the following.

1. In light of the analysis mentioned earlier (Marsella, Hilgers, & McLaren, 1992) indicating that students’ handling of writing assign-

ments is largely based on previous writing experiences, it would seem useful to design writing courses that give students a variety of writing experiences, not, for example, to restrict writing to essays.

2. Considering the variety of writing tasks and topics assigned in courses across the curriculum, it would also seem reasonable to foster in our students a flexible attitude toward writing assignments (Prior, 1992), possibly by training them to analyze a variety of writing assignments and encouraging them to feel comfortable in questioning their professors about them.
3. It seems important to address ESL students' ongoing need for efficiency in language processing, including vocabulary retrieval. We would argue that this need is not addressed by isolated work with grammar and vocabulary but rather that speed of language processing only develops through extensive and repeated *acts* of language processing in the service of accomplishing writing goals.
4. EAP writing course planners need to consider the intellectual challenge posed by the assignments made in the writing course. We would argue that the ability to engage intellectually demanding tasks well in an L2 develops from the engagement itself.
5. Given the importance of task management strategies to the students in our survey, it would seem imperative to link reading to writing by helping students locate, read, evaluate the pertinence of; respond to; and manipulate information from outside sources.

As researchers like Currie (1993), Chiseri-Strater (1991), and Walvoord and McCarthy (1990) make clear, professors across the curriculum do define part of their educational tasks as the initiation of students into the style of thinking and writing done by professionals in their fields. As writing teachers who are not members of these professions, we are not qualified to help students think and write like historians, engineers, or agricultural economists. As Spack (1988) argues, this kind of initiation is best left to the teachers in those fields and cannot be the job of EAP writing teachers. It is the job of EAP writing teachers, however, to look beyond EAP writing classrooms to the writing demands our students will face after they leave our classes and to consider how we might help to prepare them for those demands. It is also our job to remain aware of and to continuously consider the benefits of the variety of pedagogical models of EAP writing classrooms that provide us options to choose from. (See, e.g., Carson & Leki, 1993; Cumming, in press; Jacoby, Leech, & Holten, in press; Johns, in press; Shih, 1986.)

The extent to which the implications of this research are relevant to other contexts must be locally determined, but we urge course

developers and writing teachers to consider broadening the basis for curricular decisions beyond philosophical and/or pedagogical predilections. We feel that as EAP writing teachers and researchers, we need to be making greater efforts to consult more with ESL students and former students about their needs and about the ways in which their EAP writing training articulates with cross-curricular writing demands. Giving our students voice in this way helps to balance a top-down approach to curriculum design with information from those who are the focus of our efforts.

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Erratum

In Michael Busch's Research Issues contribution, "Using Likert Scales in L2 Research: A Researcher Comments," which appeared in Volume 27, Number 4, the following sentence on page 735:

In practice Likert-type scales in language learning could safely operate with a range of 59 categories (Cox, 1980).

should read:

In practice Likert-type scales in language learning could safely operate with a range of 5–9 categories (Cox, 1980).

We apologize for this error.