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International Undergraduates' Perceptions of their Second Language Writing Development and Their Implications for Writing Center Tutors

Abstract

With the large numbers of international students on campuses across the United States seeking help from writing centers, more research is needed on how second language writing skills develop over time. Expanding our previous studies of second language writing, we wanted to learn more about what international students think about the development of their ability to write in English and the role of the writing center in it. To that end, we designed a survey that asked participants about different features of their writing and how these had changed since starting to write at the college level. The results reveal that participants perceived their overall English-writing development positively, and they reported their rhetorical and linguistic areas as almost equal in development. We also found that participants who used our writing center perceived both rhetorical and linguistic features to be more improved than did participants who had not used the writing center. The rhetorical features participants reported as the least improved involve communicating with readers, while the linguistic features they saw as the least developed include word

choice, articles, and prepositions. Confidence about writing a strong argument and confidence in writing in English were also perceived as less developed. The survey results suggest that, overall, tutors should give equal attention to the rhetorical and linguistic features of second language writing development, which for some tutors would mean focusing more on language issues than they have done in the past. They should also focus on building second language writers' confidence by coaching them in self-editing.

Introduction

How can tutors best focus on the big picture of students' long-term writing development as opposed to working from assignment to assignment? The first step is to come to a better understanding of writing development, described as the changes that occur in the rhetorical, social, cognitive, linguistic, and other aspects of writing over the course of a writer's lifespan (Bazerman, et al., 2017). Writing development in a second language is even more complex. Given the over one million international students on U.S. campuses according to Dian Zhang & Mike Stucka (2010) from *US Today*, it is important for us to better understand their particular needs and concerns and how writing centers can best support them. Here international student second language writers will be referred to as *international students* even though about a quarter of international students in the United States are native speakers of English (Bromley, Northway, & Schonberg, 2018, p. 24.)

We began our research into second language writing development with a case study of one international undergraduate student's growth over a two-year period (Severino & Prim, 2016). Our goal in this survey-based study of 100 international undergraduate students was to get a better sense of what these students think about the development of their English-writing skills and to consider the implications of those perceptions for our tutors. We present here a literature review on writing development and a report of our survey research on international students' perceptions of their own second language writing development. These sections are followed by implications for tutors.

Scholarship on Writing Development

What is writing development in general? What is second language writing development in particular? We review the literature on both to illustrate the roots and complexities of the constructs of general and second-language writing development and to provide a rationale for our study and survey design. Indeed, these two bodies of scholarship—composition studies and studies of second language writing—with their different respective rhetorical and linguistic orientations should be seen as complementing and serving as a corrective for one another's possible overemphases.

Scholarship on general writing development in English (that is, writing studies that don't specify whether the writer writes in an additional language or languages) and scholarship specifically on second language writing development are in many ways similar. Both emphasize the following: psychological factors such as motivation and confidence (Sommers, 2008); cognitive factors such as goal setting (Cumming, 2012); control over the writing process, and allocation of time to more of its phases (Roca de Larios, Murphy, Manchón, & Marin, 2008); social factors such as producing genres discourse communities expect (Applebee, 2000; Sommers, 2008; Tardy, 2012); rhetorical factors such as formulating and sustaining an argument (Applebee, 2000; Haswell, 1991, 2000); linguistic factors such as using varied sentence structures and varied and precise vocabulary of an appropriate register (Applebee, 2000; Polio & Shea, 2014); and socioeconomic, political, and racial factors that affect access to quality instruction, learning opportunities, and technology (Bazerman, et al., 2017).

In addition, both first and second language fields emphasize variability in individual developmental paths and nonlinear changes as the writer gradually develops greater control of each aspect of the writing process (Bazerman, et al., 2017; Curtis & Herrington, 2003; Polio & Park, 2016; Sommers, 2008; Verspoor, Schmid, & Xu, 2012). Anne Herrington and Marcia Curtis (2000) capture this variation when they describe how the development of writing over time is "a trajectory more like an oscillating wave with recurring peaks and valleys than any straight rising line" (p. 70). Nancy Sommers (2008) describes writing development as unpredictable, often invisible on the page, and lacking the milestones specified by assessment documents: "[It] consists of steps backward and forward, starts and stops, and has no recognizable end point" (pp. 154–155). Likewise, second-language writing scholar Charlene Polio (2017) points out second language writing development should not be confused with writing improvement, as often some elements of writing can become worse as students develop their skills and expand their reach (e.g., their sentences might become too long and unnecessarily complex). This caveat is affirmed by Sommers (2008), who notes the large quantity of "bad" writing produced by developing writers, especially when faced with new tasks in new genres (p. 154). In other words, both fields highlight variation over time, both between and within individuals. This variation within individuals is explicitly reflected in our survey design.

Finally, scholars in both composition studies and second language writing tend to favor longitudinal case studies of small numbers of participants (Beaufort, 1999; Chiseri-Strater, 1991; Herrington & Curtis, 2000; Kobayashi & Rinnert, 2013; Sasaki, 2009; Severino & Prim, 2016; Spack, 1997; Sternglass, 1997). There have also been institutional studies of students' writing by composition studies researchers, including at City College of New York, the

University of Dayton, Pepperdine University, the University of Massachusetts, Harvard, Stanford (Sommers, 2008), and more recently at the University of Oklahoma, Northeastern, and St. John's (Eodice, Lerner, & Geller, 2016). Researchers in both fields have performed cross-sectional (populations of different ages or proficiency levels) and quantitative studies (Haswell, 2000; Sasaki, 2009; Verspoor, Schmid, & Xu, 2012; Verspoor & Smiskova, 2012). Most scholars agree that learning to write is a long process and must be studied over long periods of time (Bazerman, et al., 2017).

Differences also exist between general (i.e., first) and second language writing development and the respective disciplinary lenses through which they are viewed. Composition studies, a humanities discipline with social science overtones, is more prone to highlighting the psychological correlates of writing development than is scholarship from second language writing/applied linguistics, a social science discipline with humanities overtones, which typically focuses on the linguistic features of second language writing development. Composition studies scholarship on general writing development emphasizes its connections to and coemergence with personal identity (Denny, 2005); emotional, social, and ethical development (Curtis & Herrington, 2003; Eodice, Lerner, & Geller, 2016); and intellectual development and critical thinking (Chiseri-Strater, 1991; Haswell, 1991). General writing development has been associated with meaningful writing experiences (Eodice, Lerner, & Geller, 2016) that enable or invite writers to connect their writing to their lives (Curtis & Herrington, 2003; Sommers, 2008). It has also been associated with deeper engagement with learning and reading and reciprocally reflecting and fostering both (Bazerman, et al., 2017); with the values of a liberal arts education (Curtis & Herrington, 2003); and with professional success in many fields (Beaufort, 1999). In sum, general writing-development scholarship emphasizes the need for a multidimensional perspective on writing development over the lifespan, free of narrow sets of purportedly universal milestones or rigid assessment benchmarks.

In contrast to first language development research, second language writing development scholars, by necessity, focus on language, as the writers they teach and the populations they study are still very much in the process of language learning in acquiring English (e.g., Connor-Linton & Polio, 2014). The extent to which second language writers can control the syntactic, grammatical, and lexical systems of English inevitably affects their rhetorical success—their ability to communicate complex meanings and get their points across. In fact, some second language writing development work (e.g. Wolfe-Quintero, Inagaki, & Kim, 1998) has conceptualized second language writing development as consisting *only* of language development. These studies examine second language writing solely in terms of language use, focusing on its complexity (syntactic and lexical), accuracy (grammatical and lexical), and

fluency (numbers of words or words produced over time), as well as the use of "chunks" of language in writing (Benevento & Storch, 201; Li & Schmidt, 2009), lexico-grammatical development (Macqueen, 2012), and spelling development (Nassaji, 2007).

Other applied linguists have argued that second language writing development involves much more than language, namely rhetorical abilities such as argument construction and idea generation, as well as the development of a recursive writing process (Sasaki, 2004) and metacognitive awareness (Negretti, 2012). For example, Polio (2017) comprehensively defines second language writing development as "change over time in any of the following areas related to written-text production: language (e.g., complexity, accuracy, fluency, cohesion, mechanics); knowledge of different genres; text-production processes; metacognitive knowledge and strategy use; and writing goals and motivation" (p. 261). John Norris and Rosa Manchón (2012) argue that second language writing development should not be reduced to linguistic factors, a stance with which writing center and composition studies scholars certainly agree. Together they suggest equal attention be given to all dimensions of writing development, particularly when working with second language writers.

Writing center and composition studies scholars' tendency to emphasize the global, social, psychological, and rhetorical features of writing development over the local and linguistic features, perhaps to a fault, may have consequences. Some tutors (who are more likely to encounter these perspectives) may neglect or even refuse to address sentence-level problems in international students' writing due to concerns about being misconstrued as only editors or proofreaders. Tutoring handbooks such as *The Bedford Guide* (Ryan & Zimmerelli, 2016), *The Oxford Guide* (Fitzgerald and Ianetta, 2015), and *The Longman Guide* (Gillespie & Lerner, 2009) prioritize global revision over sentence-level revision and higher order concerns over lower order concerns and thus often serve to justify tutors' lack of attention to language issues. In other cases, tutors and students themselves are so preoccupied with sentence-level errors that they don't leave enough time in tutoring sessions to address global and rhetorical issues or to consider the relationship between language issues and the longer trajectory of writing development.

Our current study draws from both writing center/composition and second language writing/applied linguistics scholarship to examine international students' perceptions of their writing development; we collected these perceptions through an online survey distributed to students on our campus. Studies show student perceptions are meaningfully connected to achievement (Pajares, 2003). Although all the above correlates of writing development are important, in our study we focused on giving equal attention to the rhetorical and linguistic components of writing development, and we included a few cognitive-process and psychological-confidence elements. We also explicitly

incorporated the concept of nonlinearity into the survey by acknowledging it in the instructions to students. This incorporation of nonlinearity is based on a recommendation by Polio & Ji-Hynn Park (2016) that research in second language writing development adopt a dynamic systems theory perspective and consider writing acquisition as "a complex system where learners take different paths, show much intra-learner variability, do not progress linearly, and progress in different ways on different aspects of writing" (p. 301). Although our study was not longitudinal, as we did not survey the same students at various points over time, we asked our participants to consider how their writing had developed over the course of their undergraduate college experience.

Second language writing development, both its rhetorical and linguistic factors, was the focus of a recent case study we conducted with one undergraduate writing center student (Severino & Prim, 2016). For this new survey study, however, we wanted to contextualize the case-study findings with a larger sample of international undergraduate students writing college papers for different courses and different disciplines. We were particularly interested in how these students perceive their writing progress in different rhetorical, linguistic, process, and confidence areas. Because they have already acquired first-language literacy, and because most second language writers at our university (and many others in the United States, the United Kingdom, and Australia) are speakers of languages such as Chinese and Korean that are noncognate with English, we hypothesized that some international students would perceive their rhetorical abilities to be stronger than their linguistic abilities. This is what Noemi Storch (2009) found in a before-and-after text-based study of changes in international students' writing over a semester, which showed students improved in their ability to structure their essays and develop ideas but not in linguistic accuracy or complexity. However, a 1994 survey by Ilona Leki and Joan Carson of students' perceptions of whether courses in ESL English for Academic Purposes had provided preparation for college writing found students were more concerned about language issues, especially the areas of vocabulary, grammar, and faster language processing and production, than about their rhetorical skills. Would our international undergraduate students perceive their rhetorical abilities to be stronger than their English language abilities? Or would rhetoric be perceived as the greater challenge, as rhetorical and genre conventions change with the discipline, course, and even with the instructor? Certainly, tutors and directors would want to know whether international students consider rhetorical or linguistic matters the greater barrier to their progress in English writing so they could adjust their tutoring accordingly.

Another goal of this study was to better understand the specific rhetorical and linguistic features of writing in which our international students perceive themselves to be stronger or weaker as they learn the requirements

of college writing. In terms of rhetorical skills, are they satisfied with their ability to interpret assignments? To use sources? In terms of language, do they feel comfortable with their ability to vary their syntax and vocabulary? We were also interested in how those who worked with our tutors perceived their second language writing development in relation to those who did not. What is the role of our writing center in addressing particular rhetorical and linguistic aspects of their writing development? What might international students' writing-development perceptions mean for our tutors and tutor training?

To explore these issues, we modified the assessment questionnaire from our case study (Severino & Prim, 2016) to construct a survey that investigates the following research questions:

1a. How do international undergraduate second language writers evaluate their rhetorical and linguistic second language writing development? Do most think their English writing has improved, stayed the same, or declined?

1b. To what extent do they perceive different levels of improvement in their rhetorical and linguistic abilities?

1c. Which rhetorical, linguistic, process, and confidence factors do they perceive have improved most and least? What are the implications for writing tutors and instructors?

2a. How do our Writing Center users' perceptions of second language writing development compare to nonusers' perceptions?

2b. Which rhetorical and linguistic features do our Writing Center users say they work on most and least in tutoring sessions? How do these features compare with those identified as most and least improved? What might their perceptions mean for classroom instructors and our tutors?

Methodology

Revising the Case-Study Questionnaire

The questionnaire that we used in our case study (Severino & Prim, 2016) was designed to assess the student's perception of the development of both rhetorical and linguistic features in her writing. It consisted of two sections. The first section asked about rhetorical skills, such as her ability to fulfill assignment requirements and to write a strong thesis statement. The second section asked about linguistic skills, such as her ability to vary her syntax and vocabulary. We asked her to rate how much she thought each of these aspects

of her writing had changed over the previous two years according to three choices: 1. stayed the same, 2. improved, or 3. got worse.

In our analysis of her responses, we noticed she never chose the "got worse" option. In the interview we conducted after she had completed the survey, she explained that the thought of becoming less able to manage elements of writing after all her years of English writing instruction and practice was too demoralizing to consider. However, as noted earlier, writing development is a nonlinear process (Larsen-Freeman, 2006; 2018). Examples of nonlinear, up-and-down writing development include the inverse relationships between grammatical accuracy and fluency and between grammatical accuracy and syntactic complexity (Polio & Shea, 2014).

To make it easier for students to acknowledge nonlinearity on the survey, we replaced the "got worse" response option with the less emotionally loaded and potentially stigmatizing "declined." We also used a 5-point Likert scale to give participants five rather than only three choices: 1. much declined; 2. somewhat declined; 3. stayed the same; 4. somewhat improved; and 5. much improved. We also added the following explanation at the beginning of each section:

> Keep in mind that while all writers get better with practice, studies show that the development of second language writing skills is not a process of steady improvement. Instead, at any particular moment in time, some aspects of writing may seem to be getting better while others may not, and some abilities may seem to be declining. This is part of the normal process of writing in a second language.

Our goal was to destigmatize for students their writing struggles, or their perception that some of their skills were getting worse and might never improve, by clarifying that the normal process of writing development is uneven.

Finally, we added questions about writing confidence and the writing process, which we had assessed in our case study through an interview. We then piloted drafts of the survey among several second language writers in doctoral programs in applied linguistics and used their feedback to clarify the language of the survey questions.

Structure and Content of the Survey

The resulting survey consisted of three sections. The first two sections listed "some key skills necessary to writing an academic paper" and asked respondents to use the 5-point Likert scale from "much declined" to "much improved" to rate "the overall change in your ability since you began college-level English writing." The first section provided a list of key rhetorical features of writing, and the second section asked about linguistic features (Table 1).

Table 1
Survey Questions

Section 1: Rhetorical features	Section 2: Linguistic features
1. My ability to read and understand assignment requirements	1. My ability to maintain subject-verb agreement
2. My ability to write a good thesis statement	2. My ability to use verb tenses correctly
3. My ability to support ideas with evidence	3. My ability to use articles correctly
4. My ability to use research to support ideas	4. My ability to use prepositions correctly
5. My ability to organize ideas logically	5. My ability to use the correct word forms
6. My ability to express ideas clearly	6. My ability to use English words & expressions accurately
7. My ability to sustain an argument throughout a paper	7. My ability to use a variety of different words
8. My ability to understand how to communicate with my readers	8. My ability to construct a sentence in the right order
9. My ability to use feedback to revise the overall structure of a paper	9. My ability to write a variety of different kinds of sentences
10. My ability to use feedback to avoid problems in argumentation in future papers	10. My ability to use feedback to correct English-language errors
11. My confidence in my ability to write a well-organized, supported paper	11. My ability to edit and proofread my paper
12. My ability to adjust writing to the expectations of U.S. professors and audiences	12. My confidence in my ability to write in English
13. My awareness of different phases of the writing process	

As evident from the lists above, both sections included questions about writing confidence ("my confidence in my ability to write a well-organized paper with a strong argument" and "my confidence in my ability to write in English") and the writing process ("my awareness of the different phases of the writing process," "my ability to use feedback," and "my ability to use research to support an argument"). Most questions in the linguistic section included examples of features to help students who were not sure what we mean by, say, subject-verb agreement or a variety of words, and the different phases of the writing process are listed in parentheses (see Appendix).

The third section of the survey asked for demographic information (year of study, major, gender, and year of graduation) and an estimate of the number of college papers the student had written to date. It also asked about

the student's use of a variety of writing-support resources available at our institution, including our own writing center, and readers such as instructors, friends, family, or roommates. Students who reported using our writing center's services were presented with the two lists of rhetorical and linguistic skills again. Students were asked to indicate approximately how often they worked on each kind of skill with writing center tutors using a 4-point scale: 1. never; 2. occasionally; 3. quite often; and 4. very often. At the end of each section of the survey, students were provided a textbox for additional comments or clarifications.

Institution and Participants

During the time of our study, undergraduate students of "foreign origin" at the University of Iowa were 10% of the undergraduate population. Writing center statistics from that same time period show international students (both undergraduate and graduate students) were 44% of our writing center students and used 50% of the appointments.

To be eligible to take the survey, participants had to be undergraduate international students who had completed all their ESL requirements and at least two years of post-ESL study at a U.S. college or university. These criteria ensured participants had at least a couple of years of college-level writing experience, especially in general education courses, which are distinguished from other courses by their communication opportunities, particularly writing. We limited participation to international students because our institution does not have a large population of multilingual writers who are not international students (e.g., Generation 1.5 writers), although the Latinx and Southeast Asian communities in our area are growing. In addition, English is the second language of most of our international students, whereas for multilingual students who have attended a U.S. high school and possibly a U.S. middle and elementary school, English may not be unambiguously their second language, especially for writing. Once we had obtained IRB approval (IRB ID # 201601730) in January of 2016, we advertised the survey on our website, on the websites of two other writing centers at our institution, through International Programs bulletin boards, on fliers around the writing center, and on our digital sign. Approximately four times a semester for two and a half years we sent recruitment emails to international students across campus inviting students to take part in the survey.

Of the 3,899 international students enrolled in courses at our institution at the start of this study, one-third were undergraduate students in their junior or senior years. Over the course of the two years of data collection, as one cohort of students graduated and another moved into the eligible pool of juniors and seniors, we estimated that approximately 1,500 students were eligible for our study. By the time we ended data collection in May 2018, we

had received 142 surveys with at least one response to one or more questions, which is a response rate of 9.46 percent. Of these, however, only 100 students completed all the questions in both Section 1 (Rhetorical Development) and Section 2 (Linguistic Development), allowing for a comparison of perceptions of changes in the linguistic and rhetorical features of students' writing. For this reason, the 42 students who dropped out before reaching the end of Section 2 were excluded from this study. Of the 100 students included in the analysis, 24 stopped responding before completing Section 3, which asked for demographic information and an estimate of the number of papers written to date, as well as about writing-support-resource usage. Attrition—stopping before reaching the end of the survey—was a problem for almost half, or 66 of the 142 initial respondents ((42+24)/142 = 46.5%).

The majority of participants were female (53), Chinese or Korean students (65), and liberal arts and sciences or business majors (67) in their third or fourth year (67), reflecting the demographics of the international student population that uses our center. Forty-six reported having completed between 0 and 15 papers, and 33 between 16 and 21 or more papers for college courses. As shown in Table 2, professors and TAs (mentioned by 63 participants), as well as friends, family, and roommates (mentioned by 55), were the most frequent providers of writing support, with respondents reporting use of these resources "sometimes," "quite often," or "very often." Usage of our writing center is reported under research questions 2a and 2b.

Table 2
Resources Used Other Than Our Writing Center (WC=Writing Center) (n=100)

|	Business WC	Engineering WC	History WC	Professors/ TAs/ instructors	Residential hall	Friends/ family /roommates
Never	61	61	57	14	60	22
Sometimes	9	7	11	35	11	36
Quite often	3	3	4	24	2	10
Very often	1	4	1	4	0	9
Unreported	26	25	27	23	27	23
Total participants	100	100	100	100	100	100

Results and Discussion

Here, for each research question, we explain our analysis and present the results. Implications for tutors are discussed in the conclusion.

Research Question 1a: How Do International Undergraduate Second Language Writers Evaluate Their Rhetorical and Linguistic Second Language Writing Development? Do Most Think Their English Writing Has Improved, Stayed the Same, or Declined?

To answer this question, we calculated the overall average perception score for each participant in each category (rhetorical and linguistic). We then plotted these scores in a scatter plot to see the relationship between each students' two scores. Figure 1 shows that, overall, international students viewed their second language writing development positively, as almost all average scores are between 3 (stayed the same) and 5 (much improved). In other words, the majority saw both the rhetorical and linguistic features of their writing as having somewhat or much improved. For rhetorical abilities, 46 had average scores between 3 and 4 (somewhat improved), and 43 had average scores between 4 and 5; for linguistic abilities, 43 had average scores between 3 and 4, and 41 had average scores between 4 and 5. A rather small minority of participants reported their rhetorical and linguistic abilities had somewhat declined. In a nonlinear or dynamic systems theory view of second language writing development, such perceived plateaus and declines are seen as temporary (Larsen-Freeman, 2006, 2018). Furthermore, Figure 1 shows a clear positive correlation, as suggested by the regression line, which means students who reported positive perceptions of their rhetorical abilities tended to report positive perceptions of their linguistic abilities, or vice versa.
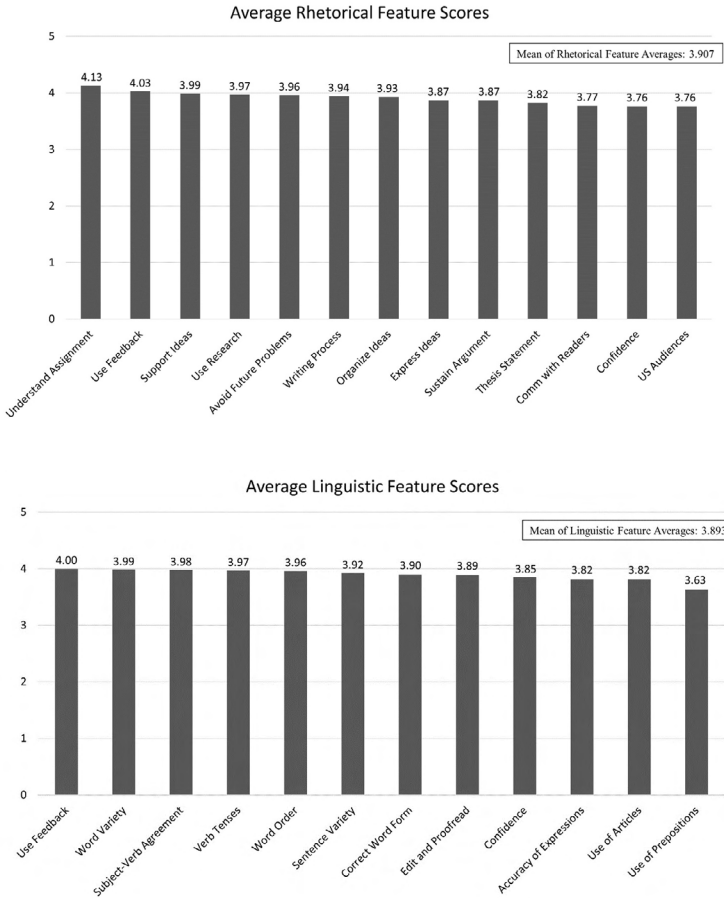
Figure 1

A Scatter Plot of Average Scores for Rhetorical and Linguistic Features
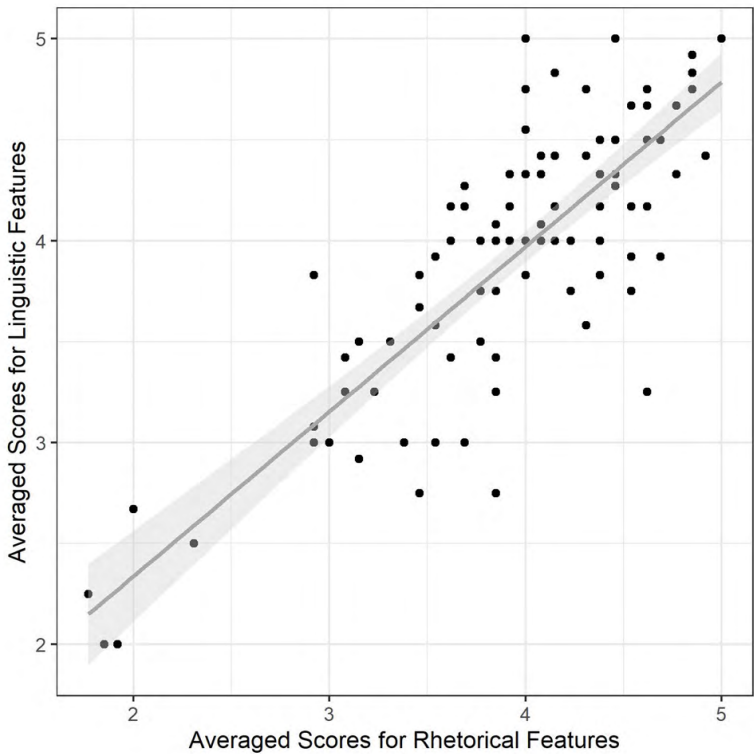
Research Question 1b: To What Extent Do Respondents Perceive Different Levels of Improvement in Their Rhetorical and Linguistic Abilities?

To answer this question, we calculated the average score for each feature and then compared the mean of the rhetorical-feature averages with the mean of the linguistic-feature averages. As shown in Figure 2, international students perceived that the rhetorical aspects of their writing development had improved only slightly more than the linguistic aspects. The mean of the average scores in the rhetorical section is 3.907, and the mean of the average scores in the linguistic section is an extremely close 3.893, a slight difference of 0.014.

Figure 2
Average Feature Scores

Average Rhetorical Feature Scores

Mean of Rhetorical Feature Averages: 3.907

4.13, 4.03, 3.99, 3.97, 3.96, 3.94, 3.93, 3.87, 3.87, 3.82, 3.77, 3.76, 3.76

Understand Assignment, Use Feedback, Support Ideas, Use Research, Avoid Future Problems, Writing Process, Organize Ideas, Express Ideas, Sustain Argument, Thesis Statement, Comm with Readers, Confidence, US Audiences

Average Linguistic Feature Scores

Mean of Linguistic Feature Averages: 3.893

4.00, 3.99, 3.98, 3.97, 3.96, 3.92, 3.90, 3.89, 3.85, 3.82, 3.82, 3.63

Use Feedback, Word Variety, Subject-Verb Agreement, Verb Tenses, Word Order, Sentence Variety, Correct Word Form, Edit and Proofread, Confidence, Accuracy of Expressions, Use of Articles, Use of Prepositions

Research Question 1c: Which Rhetorical and Linguistic Factors Do International Student Writers Perceive Have Improved Most and Least? What Are the Implications for Writing Tutors and Instructors?

To answer these questions, we identified the three highest and three lowest average feature scores for both the rhetorical and linguistic categories, looking for patterns and relationships among similar items with similar scores. The standard deviation (SD) of the scores in both sections is rather small (0.112 for the rhetorical features and 0.105 for the linguistic features), but a comparison of the top and bottom scores may provide useful information

about the specific features of writing international students perceive to be stronger and weaker. The scores also point to particular areas where writing instructors and tutors could do more to help international student writers.

Rhetorical Factors

As can be seen in Figure 2, the highest scoring rhetorical ability (4.13) is the improvement in students' perceived ability to read and understand the writing assignment. Assignment fulfillment is often the main criterion for both formative and summative feedback by instructors and formative feedback from tutors and peers. The ability to use that feedback to revise globally (for argument, organization, evidence) is, in fact, the second-highest scoring rhetorical feature (4.03), followed by the ability to support ideas with evidence (3.99). These are fundamental rhetorical skills stressed in our institution's ESL writing courses, rhetoric courses, and general education courses across the curriculum, as well as by our tutors. Thus, it made sense to us that these abilities were ranked as stronger, especially considering that survey participants were juniors and seniors, not first-year students or sophomores.

The three rhetorical skills with the lowest scores have to do with writing to and for readers, including diverse and less familiar audiences. "My ability to adjust my writing to the expectations of U.S. professors and audiences" tied for the lowest score with the related "confidence in my ability to write a well-organized paper with a strong, well-supported argument," a feature that could conceivably imply an instructor-as-audience judging the argument and its strength. This concern was echoed by the second-lowest score on the more general "ability to understand how to communicate with my readers." The reasons for not being able to predict what audiences of different instructors of different subjects are looking for are complex. In fact, even students who are native speakers of English have trouble adjusting to audience; they complain that submitting a paper is always a gamble because they are not sure what different instructors want, a common complaint on student evaluations. It is possible some instructors are not sure what they want themselves. Margot Soven (2006), a writing-across-the-curriculum specialist, points out that it is common for instructors to specify one set of criteria in their written assignment but then grade according to a different set or prioritization of criteria. Some instructors lack experience in writing clear assignments, have not discussed the assignments enough in class, or believe that what constitutes "good writing" is universal in all disciplines and courses (Chiseri-Strater, 1991). The following comment made by a survey participant illustrates the audience problem:

> There is a large disparity between writing requirements among professors. What one professor would consider a well-structured concise work, another considers lacking evidence and organization. Conversely, wordy and argumentative papers may be rewarded in one course while

given a failing grade in another. The only skill I have gained is to gauge my professors' preferences and cater to those.

Related to audience adjustment is the correspondingly low score for confidence in the ability to write a rhetorically strong paper, also reflected in a relatively low average score (the fourth lowest) for the linguistic item "my confidence in my ability to write in English." The fact that international students report lacking confidence in both rhetorical and linguistic aspects of their English writing could be somewhat embarrassing for writing instructors and writing tutors, some of whom pride themselves on being encouraging.

Linguistic Factors

Figure 2 also shows that the highest scoring linguistic feature (4.00) was "my ability to use feedback to correct English-language errors," which echoes the high score in the rhetorical section for the ability to use feedback to improve global aspects of writing. The second-highest scoring feature (3.99) was "my ability to use a variety of different words," also known as lexical variety (L), an aspect of complexity recently added to complexity, accuracy and fluency (CAF) measurements of linguistic development in writing so it is now CALF (Center for Advanced Research on Language Acquisition 2019). It is probably not surprising that international students in their third year and beyond report improvement in their lexical repertoires as they become more familiar with academic as well as informal English.

Apparently, this lexical variety does not include the ability to use English words and expressions accurately (word choice), the second-lowest linguistic score, which was tied with article usage (3.82). It seems students perceive that while their lexical variety is improving, their lexical accuracy is not, possibly because they are taking more risks, offering another example of the nonlinearity of second language development.

The third-highest scoring linguistic feature was the ability to maintain the rule-governed feature of subject-verb agreement, whereas two of the lowest scoring linguistic features—articles and prepositions—are less rule governed and therefore more challenging. The rules for correct article usage, when to use *a(n)*, *the*, or no article, are complex. When to use the prepositions *for, to, by, through, in, on, over*, and *with*, by far the lowest scoring feature on the linguistic scale (0.19 lower than the article use score), can seem arbitrary, especially in phrasal verbs such as *carry on*, *carry out*, or *carry over*.

Research Question 2a: How Do the Second Language Writing Development Perceptions of Writing Center Users Compare to Those of Nonusers?

As shown in Figure 3a-b, the differences in the average feature scores between the survey participants who used our writing center (n=40) and the

ones who didn't (n=28) are easy to spot although the reporting numbers are small, especially for nonusers. For those who used the writing center, the mean of the rhetorical feature averages is 4.11, 11.38% higher compared to the non-user mean score of 3.69. Students who used the writing center also reported more improvement in their linguistic features, with the mean of the linguistic feature averages at 4.13, 13.46% higher than the nonuser score of 3.64. While Figure 3a shows the averages, Figure 3b, a boxplot, shows the ranges of the data points and demonstrates that the majority of writing center users reported a more positive perception of their rhetorical and linguistic abilities than did nonusers. We used a two-sample t-test to compare writing center users to nonusers because the two groups were independent and the smaller sample sizes were close to 30. We set our significance level α at the conventional level of 0.05. The results show the p-value is 0.012 for the rhetorical scores and 0.002 for the linguistic scores. Since the p-values are lower than 0.05, we reject the null hypothesis that the averages are equal and conclude there is a positive correlation between students' usage of the writing center and their perceptions of their rhetorical and linguistic abilities. That is, the use of the writing center is positively associated with students' perceptions of growth in these areas.

Figure 3a (top)
Mean of the Average Feature Scores for Writing Center Users and Nonusers; n=68 (1. Much Declined; 2. Somewhat Declined; 3. Stayed the Same; 4. Somewhat Improved; and 5. Much Improved)
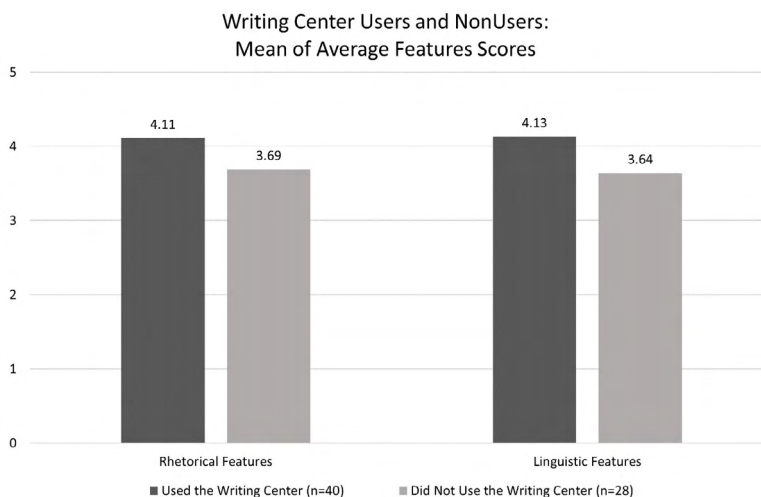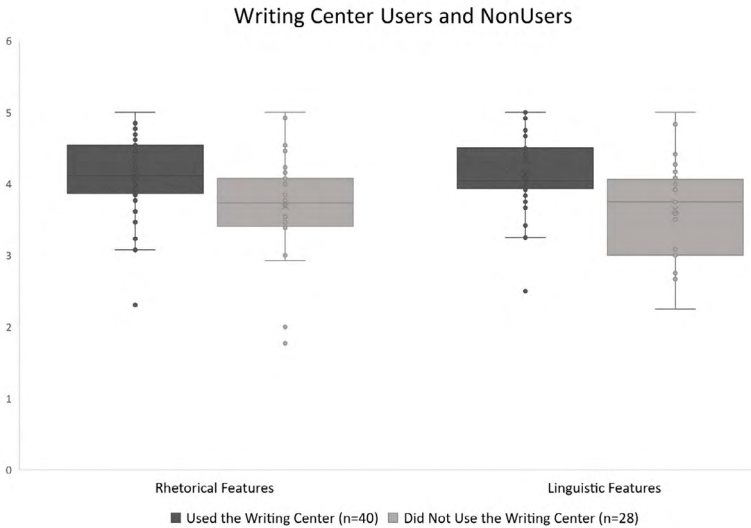

Writing Center Users and NonUsers: Mean of Average Features Scores

■ Used the Writing Center (n=40) ■ Did Not Use the Writing Center (n=28)

Figure 3b (bottom)

Boxplot of Rhetorical and Linguistic Feature Scores for Writing Center Users (n=40) and Nonusers: (n=28)[1]

While these results seem encouraging for writing centers, the statistical significance suggests correlation rather than causation. Those who use the writing center might be more familiar with the terms used to describe writing development and therefore more likely to perceive improvement in their abilities, or they may be more aware of improvement through feedback from their writing tutors. It could also be that those who perceive themselves to have stronger rhetorical and linguistic abilities are more apt to share their drafts with writing center tutors because they are more confident and less timid about letting tutors see their writing. For example, one survey participant disclosed why they do not use our writing center:

> I've never been. I'm too sensitive and too shy. The thought that other people (aside from writing workshops) will read and edit my writing with me is scary (to me).

---

1   The boxplot shows that the range is 2.54 for users' rhetorical scores and 2.50 for their linguistic scores, and the range is 3.15 for nonusers' rhetorical scores and 2.28 for their linguistic scores. The interquartile range (IQR) is 0.67 for users' rhetorical scores, 0.56 for users' linguistic scores, 0.68 for nonusers' rhetorical scores, and 1.06 for nonusers' linguistic scores. Four outliers are 2.31 (for users' rhetorical scores), 2.50 (for users' linguistic scores), and 1.77 and 2.00 (for nonusers' rhetorical scores).

Research Question 2b: To What Extent Do Writing Center Users Say They Work on Rhetorical More Than Linguistic Features in Their Tutoring Sessions? Which Rhetorical and Linguistic Features Do Writing Center Users Say They Work on Most and Least? How Do These Features Compare with Those Identified as Most and Least Improved? What Might Their Perceptions Mean for Classroom Instructors and Tutors?

Figure 4 shows the rhetorical and linguistic features 40 writing center users reported working on during their tutoring sessions. Each feature was rated on a 4-point scale as worked on 1. never, 2. occasionally, 3. quite often, and 4. very often. The rhetorical mean (2.69) and the linguistic mean (2.69) are equal, indicating that, overall, writing center users reported working on language as much as on rhetoric. However, there is a wider variation in reported attention given to rhetorical than to linguistic features, as the standard deviation for rhetorical features is 0.346, while for linguistic features it is 0.122. The three reported most frequently worked on rhetorical features in the writing center, from highest to lowest, are organization, revising structure, and writing processes. Particularly encouraging is that students perceived tutors spent time on writing processes, including organizing their paper and using feedback to revise its structure, features that may transfer to future writing.

The three rhetorical features students reported working on least often in writing center sessions are using research to support ideas, assignment fulfillment, and communicating with readers, in that order. For a tutor to assess a student's use of research materials might require multiple appointments, and, in addition, students may not see this as part of what writing centers do. Assignment fulfillment may be addressed by tutors less often when working with juniors and seniors, our sample population, than when working with first-year students who are more likely to need help interpreting assignments. It is clear, however, that tutors should work more on communicating with readers, as this was also one of the perceived least improved rhetorical features.

The linguistic features students reported working on most often in the writing center are vocabulary/idiomatic accuracy, preposition use, and sentence variety. The first two were also mentioned as two of the least improved features, so it seems encouraging that tutors were perceived to be spending more time on them although there is certainly no evidence this perceived greater amount of time resulted in improvement. The third, sentence variety, is especially challenging to learn and may require specific instruction and practice. According to one survey participant,

> Now, I know (notice) there are different types of sentences, which I did not know previously. In this sense, "my ability to write a variety of different kinds of sentences" has been improved. However, I marked it as "stayed the same" because I cannot not yet actually use these variety for
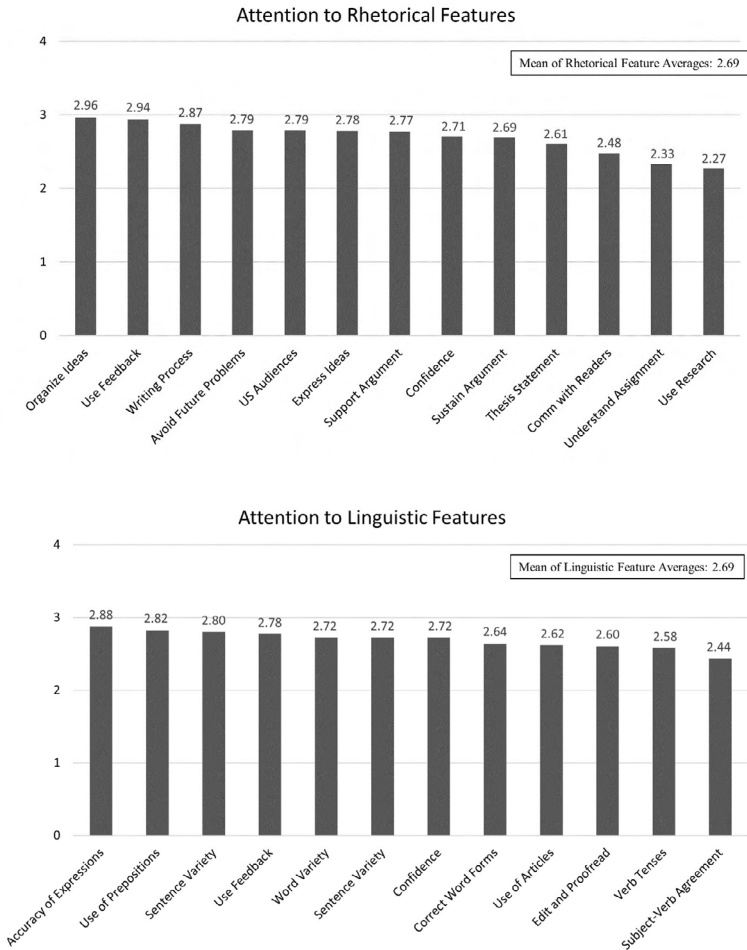
my initial draft, and I am not yet clear about how to organize these variety effectively.

Even native speakers of English have trouble varying their sentence patterns despite usually having a larger and more readily available syntactic repertoire (Remington, 2006). When tutors notice overuse of the same pattern—for example, a series of compound sentences with *and*—they should teach students different sentence patterns and sentence-combining strategies with subordination so students can expand their options.

The linguistic features perceived as least frequently worked on in the writing center are the rule-governed features of subject-verb agreement and verb tense, followed closely by self-editing. The rules of subject-verb agreement are simple enough to learn and edit for, but verb tenses/aspects in English (especially when to use simple past or the present perfect and past perfect) are complicated enough that tutors should coach students on when it is appropriate to use each.

Figure 4

How Much Writing Center Users Say They Worked on Rhetorical (Top) and Linguistic (Bottom) Features in Writing Center Appointments (1. Never; 2. Occasionally; 3. Quite Often; and 4. Very Often)

Attention to Rhetorical Features

Mean of Rhetorical Feature Averages: 2.69

Organize Ideas 2.96; Use Feedback 2.94; Writing Process 2.87; Avoid Future Problems 2.79; US Audiences 2.79; Express Ideas 2.78; Support Argument 2.77; Confidence 2.71; Sustain Argument 2.69; Thesis Statement 2.61; Comm with Readers 2.48; Understand Assignment 2.33; Use Research 2.27

Attention to Linguistic Features

Mean of Linguistic Feature Averages: 2.69

Accuracy of Expressions 2.88; Use of Prepositions 2.82; Sentence Variety 2.80; Use Feedback 2.78; Word Variety 2.72; Sentence Variety 2.72; Confidence 2.72; Correct Word Forms 2.64; Use of Articles 2.62; Edit and Proofread 2.60; Verb Tenses 2.58; Subject-Verb Agreement 2.44

Conclusions

Limitations of the Study

Self-Report and Textual Studies

This study's self-reported perceptions of writing development help us understand what students thought about different features of their writing at a particular point in time, as well as what students felt they needed to focus on—the gaps in their writing, learning, and tutoring. Their survey responses are a snapshot of their writing-development perceptions at the time they took the survey**.**

In fall 2018, we started using the survey for diagnostic and pedagogical purposes. We now give it to undergraduate international students who enroll in a tutoring program in which they work with the same tutor once or twice a week all semester. Tutors and students can discuss the student's survey responses at the beginning of the semester and use these responses to guide subsequent tutoring sessions. Tutors and students can also compare the student's responses at the beginning and end of the semester to see what has changed and discuss possible reasons for the changes. By pointing to the nonlinear nature of writing development, tutors can reassure students concerned that their skills are declining. Because of the interruptions from COVID-19 though, we have few before-and-after surveys from the same students.

Second language writing development research must go beyond collecting survey data, as some writers underestimate their abilities and progress while others overestimate them. That is why the field needs more textual analyses of these features in actual writing samples from students over time. To the best of our knowledge, there are no textual studies yet that investigate the impact of writing center tutoring on short-term (Williams, 2004) or long-term writing development (Jones, 2001). However, writing centers are positioned well to do text-based studies of longitudinal writing development; unlike most classroom instructors, centers often see the same students over many years. In our enrollment program, we have also begun collecting essays written by students in response to an argument task given at the beginning and end of every semester. Unlike the survey, we give the essay prompt to all undergraduate students, including native speakers of English and multilingual writers who are not international students. We hope to be able to compare the writing of these different groups on rhetorical and on linguistic CALF measures in a future study. Again though, interruptions from COVID-19 have limited the number of before-and-after arguments we have been able to collect from the same students. The "after" arguments are harder to collect in a writing center session when students have final papers due.

Attrition

Another limitation of this study is that the survey appears to have been too long to sustain the attention of many respondents. As many or more students abandoned the survey as completed it. Twenty-four of the 100 students included in the study completed only the rhetorical- and linguistic-development sections and did not answer all the demographic questions or questions about the use of writing resources located towards the end of the survey. Just a few participants responded to the optional questions in text boxes at the end of each section—especially disappointing because more free responses would have given us better insight into students' thoughts and feelings about their writing development.

The issue of a long survey might also subject the study to survivorship bias. Since the population we surveyed was international students, some of them might not be fluent or patient with reading English. Those whose English-reading abilities were weaker may have been more likely to quit the survey before completing the questions in the first two sections about rhetorical and linguistic abilities. These students would then have been eliminated from the study. In other words, those who completed the first two sections and whose responses were therefore included in the analysis might have been those who had overall better control over the use of English. Survivorship bias, in this case, could have resulted in more positive results than the true perception of the overall population. Shortening the survey and simplifying the questions further might help avoid the bias although it would result in some loss of detail and complexity.

Implications for Writing Center Tutors

These survey results are encouraging in two ways. First, undergraduate international students generally perceive their second language writing development positively. Secondly, our writing center users perceive their writing development more positively than nonusers. However, in terms of rhetoric and global issues, tutors should pay more attention to how international students can adjust their writing to different reader audiences; and when addressing language, tutors should take into account student concerns about lexical accuracy, that is, word choice and idiomaticity issues (Nakamaru, 2010; Severino & Deifell, 2011; Severino & Prim, 2015), as well as prepositions and articles. Tutoring for lexical accuracy involves distinguishing different contexts and connotations for words that seem synonymous, such as *happy* and *joyous*, or *sad* and *depressed*. Or students could be confusing "sound-alikes" (such as *content* and *context*, or *persist* and *insist*) or two words that could translate into the same word in their first language, such as *problem* and *question*, which are the same word in Chinese (Severino & Prim, 2015).

Overall, the slightly lower scores for the development of linguistic features suggest that in response to the concerns of advanced (third-year or more) second language writers, tutors should pay more attention to what may have heretofore seemed like minor issues to tutors. A possible implication of the low linguistic scores for prepositions and articles is that tutors should no longer be so quick to dismiss these features. Instead, realizing these features are important to international student writers, tutors can use resources such as the Purdue OWL ESL pages (Purdue Online Writing Lab, n.d.) and Sharon Deckert's "Article about Articles" (2009) to help their students find clearer explanation of usage rules. When tutors and instructors are native speakers of English, they have automatic control over prepositions and articles but may find it difficult to explain parts of speech clearly and need to seek out resources.

Clearly, tutors also must work on teaching students how to edit their own work, as it means writers will learn to identify and correct syntactic, lexical, and grammatical problems independently, which may, in turn, boost confidence. Thus, tutors must be taught not only the structure of English but how to teach students to self-edit. As Ben Rafoth argues (2015, p. 6), writing center directors must look toward second language acquisition and applied linguistics for guidance in teaching tutors and their students grammar structures and how to identify and correct faulty ones. His chapter from *ESL Writers* (2009) on how English works, as well as Cynthia Linville's on editing, is especially helpful.

Tutors can also work on confidence building by pointing out moments when international students skillfully address their audiences, or when they use appropriate and accurate language, such as when word choice is particularly precise or when a grammatical feature is especially challenging. Coaching international students in self-editing and praising them when they successfully identify and/or correct their grammar and vocabulary will also build their confidence. In other words, tutors can help build students' confidence by adopting a growth model (Dweck, 2007) that focuses on identifying and addressing the specific rhetorical and linguistic features students find difficult (e.g., "work on making your thesis statement more specific"; "work on making sure your verb tenses are appropriate") and providing targeted praise as students improve in these areas. This approach is more effective than a self-esteem-based model that tends towards vague praise for doing "a good job."

Another way to build confidence is for tutors who see the same students frequently to discuss with them what composition studies researchers have identified as the psychological, intellectual, and ethical correlates of writing development, which this survey did not address (Bazerman, et al., 2017; Curtis & Herrington, 2003; Eodice, Lerner, & Geller, 2016; Sommers, 2008). For example, tutoring sessions can include conversations about the student's intellectual development and to what extent it is occurring in tandem with

their writing development as they pursue their majors and complete general education requirements.

The results show that students at our institution perceive the rhetoric and linguistic features of their writing as developing relatively equally and that those who use our writing center, where feedback on language features is encouraged, report that about equal attention is given by tutors to both. This suggests that our tutors can continue to focus with second language writers on both discourse levels, and that in general, tutors do not need to assume they should always prioritize global or rhetorical issues. Susan Blau, John Hall, and Sarah Sparks's (2002) concept of "informed flexibility" may be more useful than a strict HOCs before LOCs approach (Gillespie & Lerner 2009; McAndrew & Reigstad, 2001), which has often meant students' language concerns are not fully addressed. A comment made by one of the survey participants reminds us of the importance of language to second language writers:

> The main reason I want to go to the Writing Center because of my poor grammar. The tutor helps me to adjust the expressions with some better vocabulary.

One of the most valuable outcomes of the study is the breakdown of rhetorical and linguistic components of writing into the two specific lists of abilities we used on the survey. These lists (see Table 1) can be given to both new and experienced tutors to acquire a better sense of the range of features that comprise second language writing development and a way of organizing and prioritizing the issues tutors and students want to address. The lists are also helpful to second language writers, as tutors call attention to specific features of writing and give students a common set of terms and reference points. Instead of the tendency of both tutors and students simply to react to the papers in front of them, becoming aware of the full range of rhetorical and linguistic features of writing will enable tutors to address the bigger picture strategy of second language writing development during college and beyond.

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Appendix: Survey of second language writing development

The goal of this survey is to find out what you think about your ability to write academic papers in English. We are particularly interested in whether or not you feel your writing has improved, stayed the same or declined over the last few years.

Please think about the papers you have written in English and the kind of feedback you have received from instructors. Think about patterns and changes in your writing.

Keep in mind that while all writers get better with practice, studies show that the development of second language writing skills is not a process of steady improvement. Instead, at any particular moment in time, some aspects of writing may seem to be getting better, while others may not, and some abilities may even seem to be declining. This is part of the normal process of learning to write in a second language.

On the next pages we have listed different writing and English language skills. For each item, you are asked whether you think your ability in these areas has stayed the same, improved, or declined. There are three short sections which should take approximately 15 minutes to complete.

SECTION I: This section lists some of the key skills necessary to writing an academic paper. For each item, you are asked to what extent you feel your skills have changed since you started college-level academic writing in English.

Remember, while some aspects of writing may seem to be getting better, others may not, and some abilities may even seem to be declining. This is part of the normal process of learning to write in a second language.

- For each item, please choose the answer that you think best describes the overall change in your ability since you began college-level English writing. (Much Declined; Somewhat Declined; Stayed the Same; Somewhat Improved; Much Improved)
  - My ability to read and understand the assignment requirements
  - My ability to write a good thesis statement
  - My ability to support ideas with evidence
  - My ability to use research to support my ideas
  - My ability to organize ideas logically
  - My ability to express ideas clearly
  - My ability to sustain an argument throughout the paper
  - My ability to understand how to communicate with my readers
  - My ability to use feedback to revise the overall structure of a paper (argument, organization, evidence, etc.)
  - My ability to use feedback to avoid problems in argumentation in future papers
  - My confidence in my ability to write a well-organized paper with a strong, well-supported argument
  - My ability to adjust my writing to the expectations of US professors and audiences
  - My awareness of the different phases of the writing process (e.g. research; brainstorming; outlining; first/second draft; revising; editing; proofreading) and which phases I need to return to (e.g. research if I need more evidence, revision if my thesis needs to be more specific)

- Do you have any comments about why you chose the responses you did for the questions above? Use the text box below to provide additional information.

SECTION II: This section lists some important English language skills. For each item, you are asked to what extent you feel your skills have changed since you started college-level academic writing in English.

Remember, while some aspects of writing may seem to be getting better, others may not, and some abilities may even seem to be declining. This is part of the normal process of learning to write in a second language.

- For each item, please choose the answer that you think best describes the overall change in your ability since you began college-level English writing. (Much Declined; Somewhat Declined; Stayed the Same; Somewhat Improved; Much Improved)
    - My ability to maintain subject-verb agreement (for example, "he eats lunch," instead of "he eat lunch")
    - My ability to use verb tenses correctly
    - My ability to use articles correctly ("a red table" or "the red table")
    - My ability to use prepositions correctly ("to speak to the man," or "to speak for the man")
    - My ability to use the correct word form (hunger / hungry/ hungrily, or thirst/ thirst/thirstily)
    - My ability to use English words and expressions accurately ("my heart fluttered" or "I took a bath")
    - My ability to use a variety of different words (argue/claim/ assert/insist)
    - My ability to construct a sentence in the right order (subject-verb-object, with adverbs, clauses, commas, and periods in the right places)
    - My ability to write a variety of different kinds of sentences (short or long, simple or with many clauses, with different structures)
    - My ability to use feedback to correct English language errors
    - My ability to edit and proofread my own papers
    - My confidence in my ability to write in English

- Do you have any comments about why you chose the responses you did for the questions above? Use the text box below to provide additional information.

SECTION III: Demographic information and Writing Center questions

- What is your year of undergraduate study in the U.S.? (Do not include semesters in which most of your courses were ESL work).

- What is your major?

- What year will you graduate?

- I identify my gender as...

- ON AVERAGE, how many formal college papers (at least two pages long) have you written since you started college level writing in English, not including for ESL courses (0-5; 6-15; 16-20; 21 or more)

- Have you used any of the writing resources listed below? Select all that apply. (Never; Sometimes; Quite Often; Very Often)
    - Business Communication Center
    - Engineering Writing Center
    - History Writing Center
    - Professors / TAs / Instructors
    - Residence hall tutoring
    - Friends / family / roommates

- Have you used the main Writing Center?

- On average, how often do you use the Writing Center (appointments, weekly program, online tutoring) during a semester? (Less than five times a week; about once every two weeks; about once a week; at least twice a week)

- Think back to your Writing Center appointments and online tutoring. In general, approximately how often do you think you worked on these academic writing issues during appointments with Writing Center tutors? (Never; Occasionally; Quite Often; Very often)
    - Understanding the assignment requirements
    - Writing a strong thesis statement
    - Finding and using research
    - Expressing and connecting ideas
    - Sustaining your argument throughout the paper
    - Organizing ideas logically
    - Supporting your argument with evidence
    - Learning how to communicate with different kinds of readers
    - Using feedback to revise overall structure, argument and organization of paper
    - Using feedback to avoid similar problems in future papers
    - Developing confidence in your ability to write an academic paper
    - Meeting the expectations of US professors and audiences

- Learning about the writing process (outlining, revising, redrafting)

- Can you give any examples of how Writing Center tutors helped you with these writing skills?

- Think back to your Writing Center appointments and online tutoring. In general, approximately how often do you think you worked on these English language issues during appointments with Writing Center tutors? (Never; Occasionally; Quite often; Very Often)
    - Subject verb agreement
    - Verb tenses
    - Article use
    - Prepositions
    - Word forms
    - Accurate vocabulary and expressions
    - Varying your vocabulary
    - Sentence structure
    - Varying sentence structure and length
    - Using feedback to correct errors
    - Learning how to edit and proofread your own work
    - Developing confidence in your ability to write in English

- Can you give any examples of how Writing Center tutors helped you with these English language issues?

- What are the most useful things you have learned during Writing Center appointments or online feedback?

- What aspects of writing would you like Writing Center tutors to spend more time teaching?

- Use the text box below for any comments, suggestions or additional information you would like to provide

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