A concordance-based study of the use of reporting verbs as rhetorical devices in academic papers

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Abstract: This research examines the use of concordancing to create materials for teaching about the role of reporting verbs in academic papers. The appropriate use of reporting verbs is crucial both in establishing the writer's own claims and situating these claims within previously published research. The paper uses a sample of articles from *Science,* a leading journal in the scientific community, to create two small corpora. Based on the frequency ranking of 27 examples of reporting verbs, a sample of 540 sentences was chosen for more careful analysis. For each reporting verb in this sample, a randomized sample of sentences was drawn. In addition, a third corpus was created from student papers to compare the student use of reporting verbs to that of published writers. Each sentence in the randomized sample was coded into six possible categories that were based on syntactic form and rhetorical purpose. An analysis of these categories is presented in the second part of this paper. The results of this research were used to design a database of sentences that could be used to create teaching materials for an academic writing course and also be accessed through the Internet (Bloch, 2009).

Keywords: reporting verbs, concordancing, L2 composition, pedagogical grammar, rhetoric, authorship, corpora

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1. Introduction

The appropriate choice of a reporting verb in the citation of one's own claims or the claims of others has been increasingly viewed as an important part of establishing the credibility of such claims. Sakita (2002) discusses the reflexivity of reporting verbs in this process; that is, how writers and speakers report and comment about their claims, as well as criticize and question them. Hyland & Milton (1999) argue it is necessary for a writer to express a claim with the "maximum interpersonal and persuasive effect" (p. 147). Making appropriate lexical choices has often been seen as a means of taking a rhetorical stance towards a claim (Charles, 2003; Hyland, 1998; Silver, 2003).

Hyland (1998) explains that reporting verbs are one of a number of grammatical devices writers need for expressing their own stance in an academic paper. Thompson and Ye (1991), for example, state that reporting verbs can be used by writers to both report their own claims or ideas and to demonstrate the attitude writers have towards others' claims. Thus, the lexical and syntactic decisions regarding the choice of reporting verbs can emerge from within this rhetorical context. As Hopper (1987) has argued, grammatical expression cannot be separated from the nature of the rhetorical context, nor can grammatical choices be made in the absence of an understanding of their rhetorical intent. For example, what words are referred to in this paper as "reporting verbs" cannot be inherently classified as such but rather as words that in the particular rhetorical context are used to report on claims by the writer or of other authors.

The idea that grammatical choice emerges from its rhetorical context (Hopper, 1987) has provided a powerful pedagogical perspective on how grammar can be taught, not as a static system of abstract rules, but as a dynamic series of choices that can reflect the rhetorical purposes for citing these claims. This perspective on lexical choice has been particularly important for integrating the teaching of grammar into an academic writing course (Hyland, 1999a, 1999b; Swales, 1990). In order to become successful academic writers, therefore, it is necessary to understand how the grammatical choices made when reporting claims can affect their credibility as researchers as well as to enhance the rhetorical impact of the claim.

Hyland (2008), however, has argued that one of the problems non-native speakers have in the citation of claims is that they feel that they must take "definite and self assured" positions with no hint of "fuzziness" (p. 70), which is often found in academic writing. Thus, even if the student can make grammatically correct choices, the rhetorical impact of their claims may suffer if the reporting verb is not appropriate. Hyland argues that while these problems can, in part, result from a general lack of vocabulary development, they can also reflect a lack of understanding of the appropriate rhetorical strategies needed for situating claims and weaving them together with the writer's own perspective. McEnery & Kifle (2002) similarly found that L2 writers tended to use less assertive devices than native-speakers. These problems may also result from how academic writing is taught. Myers (1996) argues that teachers can

overemphasize directness in stating a claim, so students may not always recognize the importance that deliberate vagueness can play in negotiating the rhetorical purpose of that claim.

Taking the appropriate stance towards a claim, therefore, can be a complicated process. Non-native English speakers (NNES) often find it difficult to choose among the wide variety of reporting verbs that can satisfy both the syntactic requirements of their sentences and, perhaps more importantly, to express their attitudes towards the claims. The issues involved in the choice of reporting verbs are often difficult for L2 learners who may not understand the subtleties of language necessary for reporting claims (Flowerdew, 2001, Hyland, 2002a; McEnery & Kifle (2002) or the importance of expressing their own opinions in their academic writing (Hyland, 2005).

L2 writers, however, often have other criteria for choosing a reporting verb. Students often seem concerned with varying their vocabulary choices, so they may freely substitute one reporting verb for another without regard for how such substitutions could affect how their attitudes towards the claim are expressed. In her study of plagiarism among NNES, Pecorari (2008) found that students do not always make conscious decisions about the use of reporting verbs. They often randomly chose a reporting verbs without a consciousness of the rhetorical consequences of their choices. In a study of Chinese-speaking language learners, Hyland and Milton (1999) found that the students were often unable to express some of these subtle relationships seen when reporting a claim.

Hyland gives a number of developmental and cultural reasons for this problem. One reason is that students are not often taught how to clearly express their own voice regarding these types of claims (Hyland, 1999). Beyond the cultural component, the effective use of reporting verbs represents a particularly complex rhetorical problem for writers using a second language. Thompson & Ye (1991) distinguish between reporting verbs that express (1) the stance of the author whose claims are being reported, (2) the stance of the writer, and (3) the interpretation of the writer. Understanding these purposes can, therefore, aid the writer in establishing the degree to which a particular claim helps or hinders the goals of the research (Hunston, 2000).

Simply randomly choosing reporting verbs can create a variety of both syntactic and semantic problems. These problems can go beyond being able to clearly or appropriately express the rhetorical intent of a claim (Pecorari, 2008), for example, found the failure to choose appropriate reporting verbs part of the more general problem of making the author of sources transparent, a problem that can lead to accusations of plagiarism. Understanding the reasons for choosing a reporting can therefore greatly help the L2 writer in the development of their academic writing skills.

Therefore, helping students understand how to use reporting verbs to achieve their own rhetorical purposes should be an important component of a pedagogy for academic writing (e.g. Swales & Feak, 2004). The goal of this research was therefore not to provide a complete overview of the use of reporting verbs but to provide a theoretical and empirical basis for developing materials for use in an academic writing

class. Specifically, the goals were 1) to better understand the variety of ways academic writers use reporting verbs in this process of building knowledge, and 2) to develop a database of sentences using different reporting verbs, which could be later used for developing teaching materials or could be accessed on line using a web site designed specifically for helping students use reporting verbs (Bloch, 2009).

2. The Role of Reporting Verbs in Academic Discourse

For the last four hundred years, it has been argued that the rhetorical context of an academic paper combines the presentation of new claims in a clear, concise manner with a review of previous related research, a concept encapsulated in the metaphor popularized by Isaac Newton "I can see further because I stand on the shoulders of giants." In recent years, however, how writers perch themselves on these shoulders has been seen in more classical rhetorical terms as a process of developing an argument to support the writer's claims. In the traditional view for writing up research, claims were assumed to be built on logical certainty, so they were seen as the "natural" outcome of scientific research. Therefore, a claim only needed to be clearly and concisely situated within the previous research. However, more recent perspectives on academic research has argued that in order to make claims believable, academic papers are by their nature rhetorical instruments whose main purpose is to convince the readers that their claims are justifiable and significant (Latour, 1987; Latour & Woolgar, 1986; Gilbert & Mulkay, 1984).

Latour (1987) has argued that throughout this process of network building between the writer and previously published writers, each citation can have a variety of rhetorical purposes, including establishing the *personae* or *ethos* of the writer, demonstrating the importance of the research, supporting the strength of one's own claims, or showing the weaknesses in research. The classical Greek term *ethos* refers to the goal of the writer to prove that she is "a good person" who therefore can be trusted to make a truthful claim. The *ethos* of a writer must be stable both across and within all forms of discourse. In her study of voice in academic writing, Ivanič (1998) differentiates between *persona* and *ethos* in establishing identity in academic writing. Persona reflects the stance a writer wants to project towards both previous claims and the writer's own claims. Persona can vary across different genres of papers or even within a paper.

In order to demonstrate *persona* and *ethos*, for example, writers often must appropriately discern differences between what Ziman (1968) calls "facts," which the overwhelming majority of members of the community consider to be true, and "opinions," where there is less agreement about the truth of the claim. He argues that citations consistent with one's own research can serve the rhetorical purpose of establishing the credibility of a claim. Citations that appear to be inconsistent must be shown to be flawed or perhaps irrelevant.

Credibility, of course, is not solely established through rhetorical means of persuasion but also through the logical clarity of the research. Nevertheless, the manner in which writers express their stance regarding their claims can directly or indirectly reflect the multiplicity of rhetorical goals the writer may have for the citation, as well as a means for establishing the writer's identity in the text (Ivanič, 1998), which as Latour (1987) also argued, is central for establishing credibility. As Hyland (2005) argues, the choice of a reporting verb is one of the lexical devices a writer must make in order to both express a stance and to connect or align oneself with the readers.

3. The Pedagogical Problem of Reporting Claims

The rhetorical impact of a paper often rests on the connections that writers make between their own claims and the claims of others. In order to situate their own research within the network of previously published research, writers must therefore evaluate the strength of each claim as well as their own attitude towards the claim they are making or reporting (Hunston & Thompson, 2000). Therefore, as Hunston (2000) argues, the choice of reporting verbs can require a great deal of exactness in order to establish the credibility of both the writer and the claims so that there is a greater likelihood that the reader will accept the position the writer is taking.

Hyland (2000a) found reporting verb usage to be dependent upon the different types of social interactions found in a paper, reflecting Swales' (1990) definition of a genre as a "communicable event" with well-defined rhetorical purposes supports the need for understanding the rhetoric of these discourse acts when making lexical decisions. Hyland differentiates between what he calls "research acts (e.g., *demonstrate*)," which refer to actions carried out in the research "discourse acts (e.g., *conclude*)," which refer to "cognitive or research activities," and "cognitive acts," which refer to the mental processes used in reporting claims.

The combination of these processes can reveal much about the writer's stance in regard to the claims being reported and therefore is an essential part of the writing process. The pedagogical problem in integrating these processes into a composition classroom is compounded by the fact that some of the more subtle distinctions, such as whether the attitude of the writer toward a claim is favorable or unfavorable, can only be understood in terms of the larger rhetorical context in which the claim is made. Therefore, as Hunston (2000) argues, the use of reporting verbs can require a great deal of specificity in order to establish the credibility of both the writer and the claims so that there is a greater likelihood that the reader will accept the position the writer is taking.

NNES do not always have the linguistic resources for learning how to make these kinds of distinctions. Relying on simple dictionary definitions, however, is not always a useful strategy for expressing a writer's stance towards a claim The reason, as de Beaugrande (2001) argues, is that there is sometimes a disconnect between the meanings of words found in a dictionary and how they are commonly used in actual

rhetorical contexts. Since rarely do two words mean the exact same thing, as is sometimes assumed, it is necessary to study them in the specific contexts in which they are found (Partington, 1998, Tognini-Bonelli, 2001). The result is that there is a lack of an "objective reality" for understanding the rhetorical context in which words are used. Therefore, as Lewin (2005) puts it, there is a need to understand how this kind of meaning is made through the reader/writer interactions found in such rhetorical contexts.

The complex interaction between lexical choice and rhetorical goal can make this process "messy' and imprecise. Therefore, traditional textbook approaches that focus on individual sentences may not be suitable for this task. As Tognini-Bonelli (2001) argues, textbooks often provide an "over-tidy picture (p. 40)" of appropriate usage since their examples were created for the sole purpose of illustrating a particular grammatical point outside of its rhetorical context. In such an approach, it can be difficult for students to understand the manner by which the choice of a reporting verb can emerge from its rhetorical context.

4. Creating materials teaching about reporting verbs and rhetoric

Therefore, it is necessary for teachers to create their own materials that capture the ways reporting verbs can be used in the specific rhetorical environment in which they are teaching, as well as to illustrate the sometimes "messiness" of the process of choosing the appropriate reporting verbs to express their intent for using the citation..
The complexity of the use of grammatical items, such as with reporting verbs, can best be understood from a study of their authentic occurrences in discourse (Hopper, 1987). Instead of relying on the artificially constructed texts often found in textbooks, students may find it more beneficial to examine how writers make these kinds of decisions regarding the use of reporting verbs in authentic rhetorical contexts. Concordancing has been frequently used to facilitate the creation of materials for this purpose since it can be used to provide a large pool of authentic examples of a given lexical item, a process that allows both teachers and learners to become, in de Beaugrande's terms, "explorers…in a tamed landscape, less like a wilderness than a nature park (p. 22)." Leech (1997) has referred to this growth of the use of concordancing as the "corpora revolution," because of the relatively easy access to the unlimited instances of authentic usage that concordancing can provide (Hunston, 2002).

Concordancing has long been used to examine the semantics of specific lexical items (e.g., Channell, 2000; Hyland, 1999a; Hyland 2002a, Johns, 1994). Research by Charles (2003) and Silver (2003) used concordancing to study specific lexical items used in the construction of authorial stance. Concordancing, moreover, can help the users construct their own conclusions from the data without being told the correct answer, a process Johns (1994) calls "data-driven learning." A technology, such as concordancing, that supports this process approach to learning vocabulary seemed to be a natural fit with the goal of teaching about reporting verbs.

Consistent with what Feenberg (1999) has argued about the non-neutrality of any technology, the introduction of concordancing for teaching grammar has reflected a shift in how grammar is taught. Since choosing an appropriate reporting verb involves a sometimes complex process involving semantic, syntactic, and rhetorical decision making, a technology, such as concordancing, that involves the user in the process of discovery would seem to be the ideal fit as a tool for helping the students understand the complexities of this process.

Data-driven learning in the composition classroom involves searching for relevant examples of a syntactic or lexical item and then deducing which example might be most relevant for the grammatical problems the user is trying to solve (Lee & Swales, 2006; Yoon, 2008; Yoon & Hirvela, 2004). Data-driven learning reflects the social constructionist approaches to learning that give the student an opportunity and a space for constructing their own meanings, which can make the learning process more active and therefore ultimately more fruitful than can be achieved by simply receiving a correct answer (e.g. Schank & Cleary, 1995; Spivey, 1997; von Glaserfield, 1995). Aston (1997) argues that concordancing allows students to research their own language problems and questions, promoting what Benson (1997) calls learner autonomy. This autonomy refers to more than simply understanding the meaning of a lexical item but also includes understanding the process by which one lexical item is chosen from among many possibilities. Thompson and Tribble (2001) argue that by using corpora, students can have a better understanding of the rhetorical practices used in the production of texts.

Concordancing, therefore, can be a useful technology for teaching about reporting verbs since it can help users identify what are the most frequently used verbs as well as their different uses. As Biber, Conrad, & Reppen (1998) put it, concordancing can help in the analysis of "the extent to which a pattern is found" and "the factors that influence variability" (p. 3), both of which are related to the problems L2 composition students have with citing claims. By creating materials that can help students make the kinds of decisions regarding the choice of a reporting verb by accessing a sample of sentences illustrating the uses of a variety of reporting verbs, we hoped that students could develop what Granville & Dison (2005) call a metacognitive understanding of academic writing by reflecting on "their own strategies that relate to the object of learning" (p. 101).

4.1 The Design of a Corpora

The first part of this project was to create a corpus containing a sample of sentences using some of the most frequently used reporting verbs, which could later be queried from a database using a predetermined set of syntactic and rhetorical criteria that writers have to consider when choosing a reporting verb. Along with the database, a series of teaching materials was developed to prepare the students for using this database.

Because these materials were to be used in an advanced academic writing course, the design of the corpora included texts based on the kinds of assignments used in these courses. The primary consideration for the corpora design was to reflect the use of reporting verbs in the genres our students were learning. One criterion for designing this corpus is how well it represents the types of language being examined (e.g. Biber et al., 1998; Kennedy, 1998; Sinclair, 1991). Other research has used smaller, specialized corpora that focus on particular genres or are related to particular types of language used in specific writing assignments (e.g. Hyland, 2002a; Tribble, 2002; Williams, 1996). Tribble suggests two types of corpora that can be useful for addressing specific writing issues: an "exemplar corpora" which is directly related to the target writing task and an "analogue corpora", which is similar to the task (p.147). He argues that while these types of corpora may not be useful for making generalizations about language, they can help raise student awareness about the nature of different genres, a goal consistent with the approach discussed here.

Two of the corpora were developed from articles sampled from *Science*, the publication of the Association for the Advancement of Science. *Science* publishes articles in the physical and biological sciences, engineering, and the social sciences, some addressed to specialists and some to non-specialists. These two corpora were analogous to the two major writing assignments in our advanced level composition course for doctoral students: a critical review evaluating current research in their field and a paper describing the research they were doing or hoped to do. The critical review corpus was developed from the book review section of *Science* since these reviews were more likely to contain evaluative language similar to what the students would use in their critical reviews.

The second corpus was developed from more formal research reports, which more closely corresponded to an assignment of writing an academic paper. The third corpus was a learner corpus created from previous student papers on the two assignments. Learner corpora have been used to compare native and non-native uses of particular grammatical items (Harwood, 2005; Hewings & Hewings, 2002; Hyland & Milton, 1997; McEnery & Kifle, 2002). The purpose of developing this corpus was to check whether there were some reporting verbs the students had used more often than was found in the published articles.

Another important factor in the design of corpora is its size. Although there is not a single size that is appropriate for every purpose, it has been shown that small corpora can be effective for studying specific language problems, such as those found in the choice of reporting verbs (e.g. Kennedy; 1998; Ghadessy & Roseberry, 2001). Kennedy, for example, suggests that corpora between 100,000 and 500,000 words may be useful for specific research questions, such as the use of reporting verbs discussed here. Based on this recommendation, a sample of articles of both text types, which were published between 1995 and 2002, was used. The corpus based on the scientific reports contained 351,973 words, the corpus based on reviews contained 316,642 words, and the learner corpus contained 310,351 words. The report corpora contained 334 articles

with an average length of 1053 words. The review corpora contained 282 articles with an average length of 1122 words.

4.2 Reporting Verb Sample

The next step in the creation of the sample was to identify some of the most commonly used reporting verbs in the sample of articles and then to analyze their usage (e.g. whether they reported on general or specific types of claims or whether they appeared with the name of the author) and what attitudes and rhetorical strategies the writer wished to express. It was first necessary to create a list of candidates from which a sample of sentences could be selected. Initially, 92 examples of possible reporting verbs were chosen based on discussions of reporting verbs in the course textbook (Swales & Feak, 2004) and from research on reporting verbs by Thompson and Ye (1991) and Hyland, (2002a), *MonoConc Pro 2.0* was used to find sample sentences using each of these 92 reporting verbs. The lemma (e.g. think, thinks, thought) for each verb was searched on the three corpora separately in order to obtain a count of the occurrences of the number of in each corpus.

Using the frequency batch command in *MonoConc Pro 2.0* (Barlow, 2001), the raw number of instances of each word in each of the three corpora was calculated and then the numbers were normalized per 100,000 words to compare the results. For both research and pedagogical purposes, it was necessary to limit the number of lexical items included in the database. Our students have frequently complained about being overwhelmed by the number of sentences that the commonly used concordancing programs return (e.g. *Collins Cobuild*). To limit the number, I first found the frequency of the word in each corpus. Although there are limitations to using frequency counts, they can be useful for "evaluating the profile of a word…in relation to the norm" (Tognini-Bonelli, 2001, p. 4).

Based on their normalized frequency counts, the top half of the candidate verbs (n=41) were chosen for further analysis. Since the corpora were not tagged, each sentence had to be analyzed to see if the lexical item, in fact, functioned as a reporting verb. After eliminating those items that were not used as reporting verbs as well as those items that occurred fewer than twenty times in the two corpora from *Science*, twenty sample sentences were randomly chosen for each of the twenty-five reporting verbs. The same procedure was repeated for the learner corpus, which resulted in two additional words being added to the list for a total of twenty-seven reporting verbs.

Table 1: Raw number and normalized number of instances of verbs used in Database

Report corpora		**Review Corpora**		**Total**		**Student Corpora**	
Raw number	**Normalized per 100000**	**Raw number**	**Normalized per 100000**	**Raw number**	**Normalized per 100000**	**Raw number**	**Normalized per 100000**
526	164.5591	160	75.13148	686	128.8016	225	9.467864
271	84.78235	310	145.5672	581	181.7659	18	0.757429
424	132.6484	98	46.01803	522	98.0094	105	4.418337
159	49.74315	85	39.9136	244	45.81282	51	2.146049
189	59.12865	54	25.35687	243	45.62506	54	2.272287
159	49.74315	74	34.74831	233	43.74749	48	2.019811
79	24.71515	106	49.77461	185	34.73513	61	2.566843
142	44.4247	40	18.78287	182	34.17186	112	4.712892
134	41.9219	17	7.98272	151	28.35138	109	4.586654
124	38.7934	26	12.20887	150	28.16362	89	3.745066
34	10.6369	100	46.95718	134	25.1595	24	1.009905
104	32.5364	29	13.61758	133	24.97174	173	7.279735
69	21.58665	56	26.29602	125	23.46968	41	1.725255
76	23.7766	34	15.96544	110	20.65332	103	4.334178
35	10.94975	73	34.27874	108	20.27781	125	5.259924
35	10.94975	71	33.33959	106	19.90229	72	3.029716
72	22.5252	33	15.49587	105	19.71453	136	5.722798
40	12.514	60	28.17431	100	18.77575	71	2.987637
20	6.257	68	31.93088	88	16.52266	45	1.893573
40	12.514	32	15.0263	72	22.5252	37	1.556938
22	6.8827	42	19.72201	64	20.0224	23	0.967826
30	9.3855	33	15.49587	63	11.82872	89	3.745066
4	1.2514	54	25.35687	58	10.88993	101	4.250019
44	13.7654	10	4.695718	54	10.1389	87	3.660907
29	9.07265	24	11.26972	53	9.951146	8	0.336635
29	9.07265	19	8.921863	48	9.012358	333	14.01244
16	5.0056	27	12.67844	43	8.073571	60	2.524764
1	0.31285	25	11.73929	26	4.881694	59	24.82684
5	1.56425	26	12.20887	27	5.069451	49	20.6189
8	2.5028	2	0.939144	3	0.563272	101	42.50019

The results of the frequency count are presented in Table 1. Six categories were chosen. The first category included all the reporting verbs so that the users could choose a verb and receive the sample of sentences containing that verb. The other five categories would be used as the criteria for making choices about the syntactic form and rhetorical purpose of the reporting verb. On the website that would be later designed, the users would receive a sample of sentences that matched these criteria.

5. Results and Discussion

Since the purpose of this research was to create a sample of sentences that would be used by students and not for testing possible differences among the corpora or generalizing about the use of each reporting verb, the analysis presented here is intended only to describe the various uses of reporting verbs in the sentences placed in the database and not to generalize about reporting verb usage. Six categories were chosen to reflect the distinctions writers make in choosing a reporting verb. These categories were included in the interface for the website (see Table 2). The number of examples for each category is shown in Tables 3-4.

Table 2: Overall Frequencies and Percentages of Results for Each Category

	Frequency	Percentage
Integral/Nonintegral		
Integral	345	65.6
Non-integral	179	34.4
Informative/Descriptive		
Informative	393	72.8
Descriptive	147	27.2
Writer/Author		
Writer	211	39.1
Author	329	60.9
Positive/Negative/Unclear		
Positive	387	71.6
Negative	69	12.7
Unclear	84	15.7
Strong/Weak/Moderate		
Strong	327	60.5
Weak	12	37.3
Moderate	201	2.2

Table 3 Frequencies for each category by word

	Argue	Assume	Believe	Claim	Conclude	Consider	Demonstrate	Describe	Discuss	Examine	Explain	Find
Integral/	10	7	15	19	19	13	10	20	13	19	6	12
Nonintregal	10	15	5	1	1	7	10	0	7	1	14	8
Informative/	20	20	19	20	20	10	20	20	20	3	20	7
Descriptive	0	0	1	0	0	10	0	0	0	17	0	13
Author/	8	9	8	1	7	5	2	0	4	2	7	14
Writer	12	11	12	19	13	15	18	20	16	18	13	6
Positive/	8	8	6	0	20	16	17	20	19	20	13	18
Negative/	2	4	2	5	0	1	2	0	1	0	6	2
Unclear	10	8	12	15	0	3	1	0	0	0	1	0
Strong/	1	12	7	1	17	17	20	19	20	20	14	18
Weak/	19	7	13	17	3	3	0	1	0	0	4	2
Moderate	0	1	0	2	0	0	0	0	0	0	2	0

Table 4 Frequencies for each category by word (continued)

	Indicate	Imply	Mention	Note	Point out	Predict	Propose	Prove	Report	Reveal	Show	State	Suggest	Think
Integral/Nonintegral	9	8	15	18	20	8	14	8	20	12	11	16	7	7
	11	12	5	2	0	12	6	12	0	8	9	3	13	13

gral Information/	4	20	2	15	20	18	16	17	20	20	20	20	20	20	
Descriptive Author/	16	0	18	5	0	2	4	3	0	0	0	0	0	0	
Writer Positive/	0	16	2	4	0	6	5	2	0	10	12	4	182	5 15	
	20	4	18	16	20	14	15	18	20	10	8	16			
	18 2	18 2	6 10	20 0	20 0	14 1	4 0	13 1	20 0	20 0	19 1	12 6	18 2	5 9	
	0	0	4	0	0	6	16	6	0	0	0	2	0	6	

Negative/Unclear	Strong/Weak/Moderate
182	0
416	0
79	4
155	0
191	0
155	0
416	0
126	2
200	0
200	0
200	0
173	0
119	0
911	0

Category I: Vocabulary Choice

The first category was intended to allow users to access the sample by choosing one of the 27 reporting verbs. Each of the 27 reporting verbs was placed in this category along with at least 20 examples of each reporting verb (a few sentences used more than one reporting verb), so when the user would choose the reporting verb that could match the writer's intentions, a sample of sentences containing that verb would be displayed. The user could then judge from the sentences whether the choice of that reporting verb was appropriate.

Category II: Integral/Non-integral

The second category reflects the distinctions Swales (1990) makes between citations that include the name of the author in the sentence, which are referred to as integral (1), and those with the name of the author outside of the sentence, which are called nonintegral (2). Since integral sentences contain the name or a specific reference to the author(s), they can place more emphasis on the authorship of the claim, as in (1).

(1) The authors **describe** a systematic approach for identifying protein-protein interaction networks in which different peptide recognition domains participate (*Describe: 1. Report*)

On the other hand, the use of nonintegral sentences, in which the name of the author(s) is either placed at the end of the sentence or replaced by a numbering sequence, can depersonalize the authors being cited. In (2), for example, there is no reference to any specific research paper although this research will be discussed in more detail afterwards.

(2) A great deal of British and Indian research has **demonstrated** the terrible long-term consequences of some colonial policies and the incredible blunders and obtuseness of many British officials confronted with these human catastrophes (*Demonstrate: 18, Report*)

Often the uses of non-integral forms included synthesizing previous research in order to make a claim. This use of integral and nonintegral sentences can vary greatly across different genres of texts as well as the different methods by which the claims are reported. Hyland (1999a) found that writers in the social sciences and humanities used many more integral citations than writers in the sciences and engineering. Here, 66% of the examples were coded as being integral (see Table 2), possibly reflecting that the articles came from a variety of fields and included fewer formal articles than used in Hyland's study. Of the 27 reporting verbs discussed in this study, only the sample sentences containing *describe*, *point out*, and *state* were all coded as integral. None of the verbs had 100% of the examples coded as non-integral.

The largest number of non-integral examples were found in the group containing the word *explain* (70%). For example, *explain* could be used to show the consequences of a piece of data, e.g. (3)

(3) The calculations also do not **explain** why water should partially dissociate below 150 K but fully associate back to the desorbing molecule above 170 K (*Explain: 6, Report*).

Category III: Descriptive/Informative

The third category also reflects the distinction Swales (1990) makes between descriptive types of sentences, a term that refers to sentences that provide a general overview of the research, and informative sentences, which contain a claim or piece of information (Swales, 1990). 73% of the verbs were coded as informative while 27% were coded as descriptive. Fourteen of the reporting verbs were coded only as informative while none were coded as only descriptive. Descriptive verbs are often used to relate the general idea of the research rather than to report claims Swales, (1990), which could account for the smaller number of descriptive verbs used. For example, in (4), the writers describe what they plan to do in the paper:

(4) We **examine** evidence about each aspect of this model as it relates to the frontal cortex (*Examine: 1, Report*).

There is no information given about the evidence in (4) since the writers only reported on what they did in their research. Even though it would seem that descriptive verbs are neutral for reporting research, they can still be manipulated to express the writer's stance, as exemplified in (2) above. In this example, the choice of the verb *demonstrate*, instead of more neutral words like *describe* or *examine,* indicates a much stronger commitment by the authors to the evidence than is shown in (1).

Informative sentences, on the other hand, are used to present the claim as well as the attitude of the writer towards the claim. Students seem to have the most problems with using reporting verbs in informative sentences, possibly because their usages are more varied and complex. For example, there can be subtle differences in deciding whether the writer agrees or disagrees with a claim, as illustrated here.

(5) We are careful not to **claim** that infants lack an ability to form associations that rule learning is uniquely human (*Claim: 1, Report*)

(6) Hamilton **argued** that the influence of competition between relatives on the evolution of altruism, especially in viscous populations, was an area in which there was still much confusion (*Argue: 4, Report*).

Since the authors in (5) present their own claims, their attitude towards the claim will most likely to be positive. However, as will be discussed later, *claim* is sometimes used to express a point that the writer disagrees with, which may be the case in this example. On the other hand, in (6), the choice of *argue* only considers

the claim to be an argument rather than a fact as in (4) and (5). What is less clear with the choice of *argue* is whether the writer agrees with the claims of the author, which can illustrate what Myers (1996) called the ambiguity of citation.

Category IV: The Writer/Author Distinction

The fourth category reflects a distinction Thompson & Ye (1991) make between the use of reporting verbs for expressing the writer's own claims and their use to report the claims of other authors. The writer is designated as who is reporting the claim and the author as who is being cited. In this category, 61% of the claims were coded as author while 39% were coded as the writer, indicating that writers in the sample reported more about others' claims than their own. The disparity may also have resulted from the greater importance of textual borrowing in relation to making original claims or possibly from differences in the corpora since the writers in the review corpora might have focused more on the ideas of the authors than on their own ideas.

In the previous section, (4) and (5) were also coded as "writer" while (6) was coded as "author." The split between writer and author illustrates the importance of "standing on the shoulders of giants" in academic writing. This distinction between writer and author can affect the choice between certain groups of reporting verbs.

These different rhetorical contexts writers can create when citing their own ideas rather than the claims of others can affect the choice of a reporting verb. In comparing a corpus made up of journal articles with one of student dissertations, Hewings and Hewings (2002) found, for example, that in the published articles, *argue* was more often used to report the claims of other authors than of the writer herself, except when the writer disagreed with another author's opinion. Our data found a similar trend but not as pronounced, with 60% of the uses of argue cited as *writer* and 40% as author. In (6), the sentence was coded as *author* since the name of the *author* (Hamilton) was the subject. Example (7) was also coded as *author* even though there was no author cited; however, it seemed clear that the writer was referring to the research of others and not his own.

(7) It has been **argued** that negative isotopic excursions and temporary high lake levels in Lake Michigan were the result of the Agassiz floods, neglecting the concurrent change in baseline flow (*Argue: 19, Report*).

In (7), the sentence was coded as *writer* when an idea was used as the subject.

(8) But the available evidence **argues** that this kinase is not the mechanism by which LTP is maintained (*Argue: 6, Report*).

Here, the writer appears to generalize about the previous research, which in this case was not cited (c.f. Hewings & Hewings, 2002). However, the majority of uses of *argue* had the author as the subject as in (9), which is more consistent with the findings of Hewings & Hewings.

This finding is also consistent with other observations on the use of *argue*. Freddi (2005) found in a study of the introductions of textbooks that the noun *argument*, when used as the head noun of a nominal group, was also used to introduce the author's opinion rather than the writer's. However, she also found that these phrases could be used by the writer to counter argue against the author's claims, a point that will be discussed later.

Claim was another reporting verb that had an interesting distribution between author and writer. Example (5) above was the only instance in the corpora where *claim* is used from the point of view of the writer. All the other usages of claim present the point of view of the author, such as (9).

(9) He **claims** that Japanese researchers, not Gallo, were the first to find a human disease caused by a retrovirus, T cell leukemia virus-type 1 (HTLV-1), despite the publication history clearly indicating the contrary (*Claim: 18, Review*).

Here *claim* appears to be used to distinguish the writer's own claim from that of the author being cited. It is not clear, however, whether the author was expressing a strong view about who was the first to find the HIV virus. However, the expression "despite the publication history clearly indicating the contrary" at the end of the sentences does imply that the writer disagrees with the author since there was a body of information that contradicted the claim. This finding about *claim* had important pedagogical implications for us by demonstrating an approach for creating negative evaluation of the claim either within the sentence or in the following sentences. These kinds of distinctions between the uses of *argue* and *claim* can be difficult for L2 writers, who may frequently interchange *argue* and *claim* as if they both had the same meaning and usage.

Category V: Attitude towards Claim

As shown in (9), the use of reporting verbs can be crucial for demonstrating the attitude of the writer. This ability can be important for establishing the identity of the writer within the paper. Category V was designed to show this rhetorical attitude of the writer towards a claim, what Lewin (2005) calls "a reflection of truth." (p. 173). Category VI attempted to show the writer's attitude. Hyland (2000b) has shown that this expression of this intent can include both hedging, or toning down a claim, and bolstering, or toning up a claim. The expression or assessment of a speaker or a writer towards the potential truth of a claim is what is often referred to as epistemic modality (Radden & Dirven, 2007). Radden and Dirven use an analogy that compares modality with the role of the audience at a play where the audience can either passively watch the play, go on to the stage, or even participate in the play. Their analogy is a useful way of looking at the role of reporting verbs in the rhetorical development of an academic paper both as contributing to how knowledge is created, distributed, and understood as well as how the identity of the creator of that knowledge is expressed.

In this sample, the small number of sentences coded as negative (13%) indicates the general lack of negatively-evaluated claims in academic texts, which is consistent with what had been found by Bloch & Chi (1996). Of all the verbs in the sample, *mention* was the only one having 50% of its uses coded as negative while three other reporting verbs -- explain (30%), *state* (30%), and *claim* (25%) -- had at least one-quarter of their uses coded as negative. Overall, 72% of the sentences were coded as positive. The ten most frequently used reporting verbs were coded as being primarily used with a positive evaluation, ranging from 65% to 100%. Seven of these were coded as 100% positive and four others as 90% positive (see Table 3). This finding is also consistent with Latour's (1987) argument that the primary purpose of citing previous research is to boost the validity claim, which usually involves citing literature that is consistent and therefore "correct."

Although only a few verbs were predominately coded as being negative, reporting verbs still can have an important rhetorical role in establishing the motivation for the research (Swales, 1990). In some cases, the negativity of the claim primarily came not from the meaning of the reporting verb itself but from the negation of the verb, as in (10).

(10) But this hypothesis does not **explain** why the number of humans infected with other Salmonella serotypes, such as S (E*xplain: 61, Review*).

Expressing a negative attitude can also be accomplished through the choice of a reporting verb, something that is rarely taught in textbooks or even explained in dictionaries.

One of the advantages of using concordancing is its ability to show samples of sentences that extend or even contradict the students' own definition of the word or a rule they had previously been taught. One such example was the difference between how *claim* and *argue* were used, as discussed above. We have noticed that students often substitute *claim* for *argue*, as if they were synonyms. While there were a number of instances of *argue* used to express agreement, there were no instances where *claim* was coded in this way.

However, students often seem to have difficulty making such a distinction. They frequently use *claim* as a substitute for *argue* without recognizing possible differences in their meanings. For example, in (11), which was taken from the student corpus, *claim* is used similarly to how *argue* is used in the previous example, that is with no indication of any possible contradiction.

(11) McConnell and Banks **claim** that external auditors' responsibility is to plan and perform audit procedures to get enough and appropriate evidence, to give reasonable estimates judgments, and assurance. (*Claim: 1, Student*).

The word *argue*, on the other hand, was used more ambiguously in the sample. 40% of its uses were coded as positive, as in (8) above where the conjunction "but" indicates that the writer agrees more with the current claim than

with the previous one. Although only (10%) were coded as negative, it was unclear in the majority of examples whether *argue* was used negatively or positively (50%). In these examples, however, there are clues in the rhetorical context that might indicate whether the writer agrees with the claim

(12) Most would **argue** that Watson's contributions were not important to the solution of the coding problem or to determining the function of RNA, and Watson provides little documentary evidence that would convince history-savvy readers otherwise (*Argue:6, Review*).

(13) Others **argue** that certain EUP industries such as the Châtelperronian and the Szeletian are "adaptive responses" by Neanderthals to the arrival of modern humans making Aurignacian industries (*Argue: 2, Review*).

In (12), the term "Most would argue" indicates a more positive attitude toward the research, as indicated by the collective nature of agreement on the claim. In (13), on the other hand, the use of *other* as the subject of *argue* makes the stance of the writer more ambiguous as to whether the writer agrees with either this argument or the previous one.

A more subtle way of critiquing a claim was seen in how the word *mention* was used to express disagreement. *Mention* was one of the verbs found more often in the learner corpus than in the *Science* corpora. We have found that students frequently use *mention* as a positive verb similar to how *point out* (100% positive) and *note* (100% positive) are used. In this example from the student corpus, the writer used *mention* with a claim that is clearly seen as positive.

(14) The author **mentions** that children like to read fantasy books, so it may seem more interesting for them to try to solve a fantasy problem rather than a real-life one. (*Mention: 18, Student*).

However, in the *Science* corpora, there were frequent negative uses of *mention* that did not appear in the student corpora. In (15), the use of *mention* seems to indicate that the writer does not think that enough attention was being paid to an important idea.

(15) Secord does **mention** Darwin, but not until the end of his book, where he discusses the influence of Chambers on Darwin not the anticipations of Darwin to be found in Chambers (*Mention: 14 Review*).

The writer's use of *mention* to indicate an error of omission by the author rather than to directly criticize the author seems consistent with the politeness strategies Gilbert & Mulkay (1984) observed in academic writing. They found that scientists often feel uncomfortable making strong negative claims in a formal research paper even though they may express strong criticisms in less formal contexts. This example does not present a strong negative claim, yet it seems to criticize the author (Secord) for ignoring Darwin until the end of the book. In this way, *mention* was used as part of this rhetorical strategy for politely criticizing an

author. This observation of the use of *mention* is one of the important benefits of using concordancing in form of vocabulary. The apparent negative use of *mention* may not be found in its dictionary definition but rather only emerges out of the rhetorical context that the data from the concordancing program provides.

The data seems to confirm this role for *mention*. Positive uses of *mention* were found in only two examples. In (16) that Dolly was "mentioned" seems to be enough to make the point that research on cloning sheep is an important topic.

(16) Since her debut just three years ago, Dolly has been **mentioned** in over 4000 news articles. (*Mention: 2 Review*).

Mention was also used in a more positive way to discuss the writer's own claims that they intend to only briefly discuss.

(17) I have only space and time to **mention** rudiments (*Mention: 4 Review*).

The use of *mention* here may be part of a strategy employed by the writers to acknowledge the limitations of their study. In (17), the use of *mention* did not seem to indicate a self-criticism but rather a realization of the limitations of space for a fuller discussion, which is itself a rhetorical strategy that can be used to fend off possible criticism that the discussion is too brief.

The use of the word *state* was another interesting case where the data from the learner corpus differed from the data from the *Science* corpora. In the learner corpus, *state* was used primarily to report facts. In the student corpus, on the other hand, each of the 101 sentences with *state* was used in a positive manner. However, in the *Science* corpora, *state* was also used to set up a claim that would be criticized in the following sentences. Although 60% of the instances of *state* were coded as positive, there was a high number (30%) coded as negative. This finding exemplified how using corpora data can be particularly useful for providing a larger context for understanding the connection between lexical choice and rhetorical intent. None of these negative uses could be explicitly seen in the sentence containing the verb but could be seen by examining the next sentence. For example, in (18), what appears to be reported as an objective fact in the first sentence was then negated in the second sentence.

(18) Bloch et al. **state** that our data do not support these results and that we ran an insufficient number of replicates of our analysis. We have performed supplemental phylogenetic analyses, and these support our original conclusions (*State: 12, Review*).

Although students seem to think that *state* is used as a substitute for *say* or *write*, the data shows that it can be used to argue that the fact is really an opinion with which the writer does not necessarily agree. In (18), the "fact" introduced by the use of *state* in the first proposition is that Bloch et al. had, in fact, made the statement; however, that does not mean that the writer considered the statement to be true. The second sentence, in fact, confirms that the writer does not agree with

the claim. As with the case of use of *mention*, this usage of *state* as a part of the rhetorical strategy for critically evaluating a claim can be best seen from examining its use in a number of authentic sentences.

Other reporting verbs were used in a similar way to weaken the original claim, so that the writer could later negatively critique the claim, usually in the following sentence. In (19), the use of *suggests*, even when boosted by "strongly," is placed in a dependent clause, which itself implies the writer may still not agree with the claim. In the main clause, however, the writer suggests an alternate possibility.

(19) Although this study strongly **suggests** that the target of BDNF is TrkB receptors in the postsynaptic neuronal membrane, it remains possible that presynaptic TrkB receptors are also involved in synaptic transmission and plasticity (*Suggest: 3, Report,*)

The ability to explore alternatives was only made possible by rhetorically weakening the first claim, both by placing it in a dependent clause and by using a reporting verb that expressed a more ambiguous attitude towards the claim. The great strength of concordancing programs can be seen in their ability to create such contexts for the student to examine such ambiguity, which can help rectify the problems with how students are often taught to cite claims.

Category VI: Strength of Attitude towards Claim

In Category VI, the degree of strength found in the attitude the writer took towards the claim was coded. Category VI could have been considered a subcategory of Category V, but it was made a separate category to emphasize its rhetorical importance. Once the stance of a writer towards a claim is established, it is necessary to show the strength of commitment the writer has towards that stance. As Hyland (1998) argued in his study of hedging, it is important that the writer carefully express the strength of agreement or disagreement with the claim or, in the case of the writer's own claims, the certainty of the claim itself.

Hyland pointed out that such hedging is not simply a linguistic decision but one that can depend on the social interaction between the writer and the readers. The complexity of understanding both the linguistic and social relationships involved in, for example, the need to hedge one's stance towards a claim, can makes this decision particularly complex. Expressing a moderate position may be an especially difficult problem for the L2 writer because this process can require differentiating among subtle differences in the strength of a claim. In their study of modal verbs and adverbs, Hyland and Milton (1997) found that NNES had a more limited ability to manipulate degrees of certainty, often making stronger claims than are made by native speakers (NS) writing. Flowerdew (1999) similarly found that Hong Kong academics considered their "difficulty in weighing the value of literature" (p. 138) to be a major problem.

The choice of reporting verbs is one way writers show the degree of strength of their commitment to the claims they are citing or making (Swales, 1990), which can be categorized along a continuum between strong, moderate, and weak. The majority of verbs were categorized as strong (61%) while only 2% were categorized as weak and 37% as moderate.
In these examples, there was a difference in the strength of the claim even though both sentences are citing more than one piece of research to support the claim.

(20) Earlier studies **show** that replacing Trp62 by another amino acid residue strongly affects the folding process (*Show: 11, Report*)

(21) Several lines of evidence **indicate** that these actions of BDNF are mediated by the TrkB receptor tyrosine kinase *(Indicate: 20, Report*).
Although both claims seem to be boosted by citing other consistent research, the difference in the strength of the commitment expressed by using *indicate* instead of *show* illustrated how the choice of reporting can clear rhetorical differences in the writer's attitude toward the claim.

There are a variety of reporting verbs that can similarly be used to understate the certainty or generalizability of a claim. Unless there is an overwhelming amount of data to support a claim, a writer must be cautious in expressing a claim. Hyland (2002a), for example, points out that words like *suggest* can mitigate the writer's responsibility toward this certainty. At the same time, this lower level of responsibility can be boosted by the use of a variety of other rhetorical and linguistic devices. In this study, while most instances of the use of *suggest* and *indicate* were coded as moderate, their strength could be boosted to make the positive expression of the claim stronger.

(22) These findings strongly **suggest** that when endogenous BDNF binds to TrkB receptors, permissive and/or instructive signals are generated that induce LTP (*Suggest: 13, Report*).

(23) Consistent with these relationships, our observations **indicate** that the strongest surface westerly winds and deep convection were apparent only over waters warmer than about 29°C (*Indicate:23, Review*).

In (22) and (23), the writers boosted their claims by either using an adverb or by providing additional support evidence. For example, the use of *suggest* in (22) is boosted in two different ways. The first way is to show that there are multiple sources to support the claim. As Hyland (2002b) points out, expressions like "These findings," which Hyland refers to as an expression of an "abstract rhetoric" (p. 172), boost the strength of a claim by showing there is more than one piece of evidence to support the claim. The use of the adverb "strongly" in (22) boosts the use of ”suggest” so that the writer's attitude towards the claim is expressed almost as positive as with the use of

such reporting verbs words as *show* and *demonstrate*, which were coded overwhelmingly as being strong.

The use of the *indicate*, as opposed to words like *show* or *demonstrate*, can be used to moderate the strength of a claim, which can be an important rhetorical strategy for heading off possible criticisms. At the same time, the writer can still show the strength of their commitment to the claim by their use of boosters. In (23), for example, the writers boost the claim by showing that the claim is "consistent" with previous evidence, which is a value consistent with Latour's (1987) about how the literature is used to support one's own claims. Here again, as Hyland (2002b) argues, words like *indicate* can hedge a claim in a way that minimizes its chances for rejection because of its being expressed too strongly. At the same time, writers can increase their level of commitment by using other lexical or rhetorical devices without taking too strong a position, which the audience might reject.

As with Category V, Category VI illustrates the value of concordancing programs for providing authentic contexts for understanding the sometimes nuanced use of a particular lexical item. Hewings & Hewings (2002) have found that showing these differences between learners and published writers is one of the most valuable uses for concordancing. We can see in this category, the usefulness of concordancing for creating examples of discourse that can show learners how the variations in the choice of reporting verbs can depend on the rhetorical context in which the word is found.

6. Conclusion and Pedagogical Implications

The primary purpose of this research was to illustrate the decision-making strategies that published writers use in deciding which reporting verb to use and then to provide examples of authentic uses of reporting verbs that would be useful in the types of writing they were learning. Making the appropriate choices regarding reporting verbs is integral in making what classical rhetoricians call *kairos*, the creation of an appropriate argument at the appropriate time, a point that has frequently been ignored in the teaching of L2 composition. No such remediation process is static, but through the approach discussed here, we hope that students can better understand how to choose the appropriate reporting verb and understand the rhetorical impact of their choices.

There are limitations to this approach as well. It is difficult, if not impossible, to create a representative sample of how reporting verbs are used in a way that could reflect all the uses for reporting verbs. The analysis presented here is preliminary and subject to further revision as other samples of data are analyzed. Nevertheless, by utilizing the process for making such choices, it was hoped that the students could develop a deeper understanding about the usage of reporting verbs. As Lewin (2005) argues, the cultural context in which rhetorical strategies are used necessitates explicitly teaching such processes as are discussed here. The use of data-driven learning strategies associated with concordancing technologies has meant that students must be

more active participants in a fluid learning process that can vary across different rhetorical contexts or genres (Johns, 1994).

In this way, grammar learning can be connected to the larger rhetorical processes involved in knowledge construction. Traditional textbooks, which are usually geared to giving "correct" and "incorrect" examples of grammatical usage, often do not, and perhaps cannot, deal with the complexities of this issue. Unlike traditional grammar teaching, the approach discussed here does not provide the student with either correct or incorrect examples. Rather, as Johns (cited in Hunston, 2002) has argued, concordancing allows students to become "language detectives (p. 170)," who have the responsibility for making their own decisions about appropriate usage.

The distinctions made in this research in the use of reporting verbs in academic texts also illustrate the value of concordancing over other traditional strategies for studying vocabulary such as the use of a dictionary. The dictionary definitions of some of these reporting verbs, however, do not always show the subtly of meaning that was found in the concordancing data. The use of some reporting verbs, like *state*, *mention*, and *claim*, in making negative evaluations are especially interesting. Therefore, discussions on how to make negative evaluations are necessary in an L2 writing classroom even though the number of instances of negative evaluations in published papers may be low.

The corpora of sentences has proved useful both for the classroom and in the program designed for student use outside the classroom. A sample of the sentences was first used to create pencil and paper exercises to introduce students to categories II-VI, which also helped prepare students for using the learning object (eslcomposition.osu.edu) that was designed for the students to access online both the sample sentences and to walk them through the process for choosing reporting verbs whenever the students needed help (Bloch, 2009).

The processes incorporated into this website can help students not only understand the different uses of reporting verbs but also the processes by which syntactic choice relates to the rhetorical context of the writing. Osburne (2000) argues that despite the contradictory research on the role of such knowledge on language acquisition, there is value in giving students a metalanguage, especially when the metalanguage is based on authentic language examples. He, therefore, finds that this kind of approach can help NNES writers make appropriate choices by guiding them in accessing knowledge about a given grammatical form where there is a two-way interaction between the meanings of a word and what is called here the rhetorical intent or purpose of the writer.

There are larger issues regarding the use of technology in the second language composition classroom as well. The research presented here illustrates how the introduction of a technology, such as concordancing, into the classroom both reflects pedagogical decisions regarding grammar teaching while, at the same time, affects how grammar teaching is carried out (Bloch, 2007). As Aston (2000) argues, using corpora in teaching is valuable for providing contexts to observe the communicative nature of texts. Language use is a process of negotiation in such contexts, which as Hopper

(1987) argues, can be well shown not by using isolated, decontextualized sentences but by providing students with both authentic examples of usage and of the processes by which writers make decisions about the expression of these important lexical items.

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