Competence in lexical boosters and nativeness in academic writing of English: the possible relation

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Abstract
Boosters are an important metadiscourse device for writers because it creates an emphatic impression in the reader. In addition, the competence of metadiscourse devices such as boosters is crucial in having native-fluency in academic writing. Therefore, this avoidance of using boosters may spawn foreignness in non-native writers' academic texts. The present study has four-fold aims to accomplish: (1) whether there is a statistically significant difference between native and non-native writers of English in terms of the number of boosters and lexical diversity of boosters; (2) whether there is a correlation between a writer's competence of boosters and native-fluency in academic writing; (3) to suggest pedagogical implications for writers regarding the use of boosters; and (4) to create a list of boosters that may be used by writers in their prospective studies. Accordingly, the present study investigated 200 articles written in English by Anglophone and non-Anglophone writers. The results provided partly statistically significant differences. Another significant result which may be a reference point for further research is that Anglophone writers are prone to writing their academic texts with a higher lexical variety when compared to non-native writers.

Keywords: Academic writing; boosters; boosting; native fluency; writing

1. Introduction
Writing is crucial for every sphere of life. Even, it is the foremost ground upon which one’s work, learning experience, or intellectual level will be judged at an educational institute, at a workplace, and in the community. While writing faculty is a requisite for every aspect of the quotidian life, scholarly writing is an indispensable part of an academic's professional life (Yağız & Yiğiter, 2012), since the need for writing in academe is undoubtedly of importance compared to other fields.

In the course of time, the ability to produce a cohesive and understandable written text has become an important and essential skill for academic success (Feagans & Applebaum, 1986). However, the focus was not on spelling or punctuation anymore but on content itself. The deflection from spelling and punctuation towards the content has imposed an obligation on writers to use vocabularies efficiently so that the content would be well-organized and productive for audience. To achieve vocabulary efficacy, the literature emphasizes metadiscourse devices. The introduction of
metadiscourse into the applied linguistics occurred in the 1980s (Hyland, 2005), and from then on, a large number of studies aimed to examine the effect of it on academic writing.

In order for a discourse to be considered academic, the writer should care for every point meticulously not to miss even the most trivial detail. As Skelton (1997) emphasized, boosters are indispensable part of writing conventions, in particular for scholarly writing because they, also called certainty markers, emphatics, and intensifiers, create an emphatic impression in the reader, making a great contribution in persuading the reader regarding the claims. However, there needs to be an equilibrium concerning the amount of boosting devices in academic texts (Hyland, 1998b). By overusing intensity markers, it is possible to create a counter-effect on reader and that backfire may reduce the credibility of the statements because much evidence would be needed to cover high level claims.

Hinkel (2004) claimed that non-native writers of English (NNWs) unintelligibly avoid including metadiscourse devices such as boosters in their research articles; however, inadequate use of boosting devices may undesirably spawn ineffectual research papers, which is undoubtedly an unwelcome ramification on behalf of both the writer and the purpose of publishing. In other words, the fact that non-native writers avoid being assertive in their scientific papers leads to invisibility of authorial stance over their claims and that shadowy position may be deemed as a sign of the writer’s indeterminacy over the discussed issue; accordingly, the lowering credibility may prompt lack of confidence or doubt in readers. That inescapable conclusion is, out of doubt, undesirable by the writer whose primary aim is to persuade the readers on his/her claim. On the other hand, some studies (cf. Akbaş, 2012; Chen, 2012) showed that native writers of English (NWs) are prone to use boosters in their academic writing.

The question is whether the ability to use discourse devices is commensurate with language proficiency and with the degree of nativeness in a language. Distinctively, the present study has some purposes to achieve. First, it investigated the possible relationship between nativity in academic writing of English and the use of boosters, and whether the use of boosters makes a contribution to NNWs to have native fluency in their academic writing. Second, through statistical calculations, the present study aimed at revealing the statistical differences and similarities between NWs and NNWs in terms of booster frequency. Then, it suggested some pedagogical implications for NNWs concerning the use of boosters. And, finally it aimed at creating a list of boosters for NNWs, compiled from NWs’ academic writing and dictionaries. It is hoped that the lexicon list of boosters for NNWs is going to be used in NNWs’ future studies, and it is going to diversify NNWs’ lexical richness and function as a preventive shield against erroneous use of boosters in the target language. Concisely, it is anticipated that the present study is going to help to decrease the foreignness in NNWs’ academic writing and raise the opportunity of creating native-like academic texts.

1.1. Literature Review

Although the issue of boosting has generated quite a ripple among some linguists, and it has been excruciatingly opposed by some linguists in the vanguard such as Pinker (2014), boosters can be considered as rhetoric devices with a purpose of strengthening authors’ claims or statements on the issue, thus it creates a heftier conviction and persuasion influence on the stockholder. Along similar lines, boosters seek to increase the claims or statements, hence to prove the author’s commitment and engagement to her/his statements (Hyland, 1998). Briefly to illustrate, boosters are certainty markers which intend to prove the writer’s stance on a colossal scale by trimming discursive space.

The studies in the literature were conducted on the basis of cross-linguistic, cross-disciplinary, intra-disciplinary, descriptive, and comparative depending on the purpose the researchers want to
uncover. It may be construed from the word *comparative* that both NWs and NNWs produce their texts in the same language, i.e., in English in the present study. When the lacuna in the literature is taken into consideration, there seems a paucity of studies on boosters that were comparatively conducted. Furthermore, comparative studies broadly provide a better opportunity for critical analysis of the issue being studied for audience. On that vantage point, among comparative studies existing in the literature, Vassileva’s (2001) study is one of the most crucial ones. Examining English and Bulgarian academic texts cross-linguistically and comparatively, Vassileva aimed at revealing the degree of commitment and detachment in English, Bulgarian, and Bulgarian English academic writing, hence to reveal similarities and differences from frequency and pragmatic perspectives. The overall number of boosters in Bulgarian English appeared to be slightly over than native English. Despite this, the results did not yield a statistically significant difference because the range was not large ostensibly.

Chen (2012) conducted a contrastive analysis of epistemic expressions in native and non-native Chinese writers of English by analysing written documents obtained through examinations. Based on the examination of the corpus, the study showed a great similarity between native and non-native Chinese writers in the total number of epistemic devices. Regarding non-native Chinese writers of English, Chen suggested that there should be an improvement in the knowledge of appropriate commitment use. Akin to Chen’s study, Kim and Suh (2014) made a study to investigate epistemic rhetorical stance of L1 and L2 (Korean) students’ English writing. Based on the consideration that a writer’s argument should be delivered with an appropriate degree of assertion and mitigated expression, their study aimed to examine whether positioning statements was with a balanced qualification, whether certainty statements remained a challenge for L2 writers, and whether there was any difference between Korean writers of English and native writers in using the expression of certainty. The findings indicated that Korean writers of English took a stronger stance in their claims compared to their Anglophone counterparts. Furthermore, Korean writers’ lexical diversity was narrow with simpler constructions. The study provided almost exactly the same results with Chen’s, who examined Chinese students. It seems that Korean and Chinese writers, both from Far East, have similar authorial voices -assertive- in their English reports.

Different from other studies in the literature, the present study not only investigated boosters that were employed by NWs and NNWs or simply put the results on view but laid bare the similarities and differences between NW and NNW. Another thing that is surely to the good for particularly NNWs is the list of boosters that was compiled from NWs' academic writing and dictionary scanning. The existence of a boosting lexicon in the linguistic literature is going to categorically offer an advantage for NNWs to achieve communicative competence by enhancing their lexical diversity in addition to help NNWs set their stylistic appropriateness in academic writing. In addition, it also seems to be a paucity of studies conducted to see writers’ lexical richness regarding boosters. The present study investigated NWs’ and NNWs' lexical diversity regarding boosters together with statistical analyses.

1.2. Research Questions

Although specific research questions of the present study were delivered, it will be useful to indicate that the present study dedicated itself to a central research question; ‘To what extent do native and non-native writers of English employ lexical boosters, and how should the findings be interpreted to be able to make suggestions to non-native writers in order to have native-like academic texts?’.

1. To what extent do NWs and NNWs use lexical boosters in their research articles? Are there any statistically significant differences?
2. To what extent do NWs and NNWs have lexical diversity of booster in their research articles? Are there any statistically significant differences?

2. Methodology

2.1. Corpus

The corpus of the present study was composed of 200 (100 from NWs and 100 from NNWs) scientific articles written in English on ELT. The principal motive behind choosing articles only on ELT is that rhetorical devices are said to have changed across disciplines (Hyland, 2005). Verification about author nativeness was not ensured by contacting them. Author status of being native or non-native of English was presumed based on his/her name and nationality. In articles where more than one scholar is involved, the corresponding author or the first author in the affiliation was regarded as the writer of article, hence the nationality of the first or corresponding author determined the status of nativeness of all others.

The articles were selected randomly from diverse journals that accept papers on language education, language teaching, or other language pedagogy issues. The journals are shown in the Table 1.

Table 1. The journals from which the corpora were compiled for each writer group.

<table>
<thead>
<tr>
<th>The name of the journal</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ELT journal</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>2 English for Specific Purposes</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>3 System</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>4 Applied Linguistics</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>5 Language Learning</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>6 TESOL Quarterly</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>7 Language Teaching Research</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>8 Journal of Second Language Writing</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>9 Language Teaching</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>10 First Language</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>11 RELC Journal</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>12 Journal of English for Academic Purposes</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>13 Journal of Second Language Writing</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

To be able to see synchronic variations on the use of lexical boosting, articles published only in the last eight years were gathered. Not to lead any reliability concern, the corpora were compiled from equi-length articles as shown in the Table 2.

Table 2. Corpus size

<table>
<thead>
<tr>
<th>Author group</th>
<th>Tokens</th>
<th>Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native writers</td>
<td>601025</td>
<td>24076</td>
</tr>
<tr>
<td>Non-native writers</td>
<td>590109</td>
<td>22427</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1191134</strong></td>
<td><strong>48152</strong></td>
</tr>
</tbody>
</table>

To assure the representativeness of the corpora, a probabilistic sample using simple random sampling technique was used in order to collect articles, and to construct the corpora. Probabilistic
sample technique refers to a sampling procedure in which “all members of the population have the same probability of being selected” (Schreiber & Asner-Self, 2011, p. 87).

2.2. Unit of Analysis

The identification of linguistic devices in a corpus is an arduous work, which is why it needs carefully planned formative preparations. Regarding boosters, the propositions in the corpus were meticulously scanned. The term “proposition” needs further clarification because it was ascribed quite a different meaning than the traditional definition of it. The term “proposition” refers to the meaning of units that makes up the core meaning (Sanjaya, 2013). Further to say, each word cannot be considered as a device functioning hedges or boosters. For example the word “clear” can be an adjective acting as a booster in certain contexts while not in others.

2.3. Identification of Boosters

Prominent researcher Vassileva (2001) criticized Salager-Meyer’s (1994) taxonomy of boosters for being not so clear-cut, and proposed a taxonomy which is comprised of five categories as modals, epistemic verbs, epistemic adjective and adverbs, grammatical/stylistic, and others. Different from Vassileva, Pho (2008) constructed a taxonomy for boosters by passing the frontiers of traditional sentence components. His taxonomy included “Grammatical subjects; Modal auxiliaries and semi-modal verbs; Epistemic adjectives, adverbs and nouns; Attitudinal adjectives, adverbs and nouns; Verb tense and aspect; Voice; Self-reference words; Reporting verbs; and That-complement clauses”. Putting phrase-based boosting constructions aside and given that the literature regarding the taxonomies of boosters is not rich; the present study built an eclectic taxonomy of boosters categorized into six:

1) **Modal boosters** *(must, need to, will, have-has to, be to+infinitive)*
2) **Verbal boosters** *(ascertain, assure, convince, prove, substantiate etc.)*
3) **Adjectival boosters** *(absolute, adorable, alluring, assiduous, apparent etc.)*
4) **Adverbial boosters** *(accurately, admirably, assertively, blatantly, categorically, etc.)*
5) **Quantifiers/determiners** *(many, much, a great amount etc.)*
6) **Noun boosters** *(certitude, corroboration, eternity, plethora, proof etc.)*

2.4. Research Design

Although there were PC-based word processing software programs, the corpus was manually scanned. A PC based software program, a concordance program, was not employed for a grave reason. It is absolutely apparent that to make a scanning of the corpora by the researcher manually is a must to be able to detect the semantic referring of the words, but a concordance program would only give the statistical information about the words but not semantic or pragmatic interpretation. In other words, an epistemic modal auxiliary, for example, ‘will’ would not have a function of boosting in every sentence it was used. For Instance, in a sentence ‘Now, we will show the results’, ‘will’ does not function as a certainty marker, but a ‘tense case’.

Having completed the manual scanning of the corpora, to investigate whether there were statistically significant differences between NWs and NNWs, the outputs were inserted into Chi-squire test through PC-based SPSS software programme.
3. Results

3.1. Quantitative Analyses

3.1.1. Overall Statistic Results

According to the Figure 1, there seems a symmetrical use of boosters. For example, the lines start with the category of *modals*, and decrease toward *verbs*, and then reach to the zenith in the category of *adjectives*. Adjectival boosters take the first rank while Nouns take the last rank for both NWs and NNWs.

3.1.2. Lexical Diversity

By examining the Figure 4.6., it can be stated that NWs were superior to NNWs in boosting lexical variety in total. Germane to sectional lexical variety, it is easily seen that adjectives have the highest lexical variety in total while nouns have the least.

When the results were closely examined from Anglophone writers’ perspectives, the category of adverbs had a high variety when compared to all other categories of boosters whereas NNWs had a lexical variety the most in the category of adjectives. Nouns had the least lexical variety in both NW and NNW corpora.
Table 3. Breakdown of Booster Diversity in Sample Data

<table>
<thead>
<tr>
<th>Variables</th>
<th>Native Writers</th>
<th>Non-Native Writers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min.</td>
<td>Max.</td>
</tr>
<tr>
<td>Modal</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Verb</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Adjective</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>Adverb</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Quan./Deter</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Noun</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>24.94</td>
<td></td>
</tr>
</tbody>
</table>

The Table 3 displays that NWs are superior to NNWs in total booster diversity with an average of 24.94 to 17.99, meaning that each NW used 29.94 boosters in average while each NNW used 17.99.

The results reveal that the categories of adjective and adverbs have the maximum number of booster diversity for both groups while the categories of modals, verbs, quantifiers/determiners, and nouns have a minimum number of booster diversity at the amount of zero.

It is seen from the Table 3 that one or more than one writers did use none of each category except for adjectives. Meanwhile, the highest booster diversity belongs to adjectives and then adverbs as they were in NW corpus. Again, similar to NWs results, the findings in the Table 3 show a parallelism between NW and NNW result in terms of mean scores. Adjective and adverbs have the highest mean scores; 6.88 and 5.53, respectively. Nouns, as it was in NW corpus, constructed the category with the lowest mean score with an average of 0.48, which is a similar score to NWs’ (0.55).

3.1.3. Results of Quantitative Analyses

The Table 4 gives statistical findings in order to better understand sectional booster diversities between NWs and NNWs.

Table 4. Statistical findings of booster diversity

<table>
<thead>
<tr>
<th>Variables</th>
<th>Value</th>
<th>df</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal</td>
<td>9.643</td>
<td>5</td>
<td>.086</td>
</tr>
<tr>
<td>Verb</td>
<td>11.242</td>
<td>4</td>
<td>.024*</td>
</tr>
<tr>
<td>Adjective</td>
<td>29.479</td>
<td>18</td>
<td>.043*</td>
</tr>
<tr>
<td>Adverb</td>
<td>66.011</td>
<td>19</td>
<td>.001**</td>
</tr>
<tr>
<td>Deter/Quan</td>
<td>23.299</td>
<td>9</td>
<td>.006**</td>
</tr>
<tr>
<td>Noun</td>
<td>8.141</td>
<td>3</td>
<td>.043*</td>
</tr>
<tr>
<td>Total</td>
<td>61.881</td>
<td>35</td>
<td>.003**</td>
</tr>
</tbody>
</table>

* represents for a p value at .05
** represents for a p value at .01

As understood from the Table 4, a non-significance was observed only in the category of modal booster diversity ($X^2(5)=9.643$, p=.086), which means that NWs and NNWs included modals in their academic writing at a similar rate. On the other hand, in all other categories a marked difference was found between NWs and NNWs: verbal boosters diversity ($X^2(4)=11.242$, p=.024); adjectival boosters diversity ($X^2(18)=29.479$, p=.043); adverbial boosters diversity ($X^2(19)=66.011$, p<.001); determiner/quantifier boosters diversity ($X^2(9)=23.299$, p=.006); and noun boosters diversity
To detect whether there were statistically significant differences between NWs and NNWs in terms of the number of boosters Chi-square test was employed. The results were furnished into the Table 5.

**Table 5. Statistical findings of lexical boosters**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Value</th>
<th>df</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal</td>
<td>19.304</td>
<td>16</td>
<td>.253</td>
</tr>
<tr>
<td>Verb</td>
<td>11.782</td>
<td>7</td>
<td>.108</td>
</tr>
<tr>
<td>Adjective</td>
<td>32.902</td>
<td>30</td>
<td>.327</td>
</tr>
<tr>
<td>Adverb</td>
<td>49.076</td>
<td>30</td>
<td>.015*</td>
</tr>
<tr>
<td>Deter/Quan</td>
<td>27.901</td>
<td>21</td>
<td>.143</td>
</tr>
<tr>
<td>Noun</td>
<td>6.329</td>
<td>7</td>
<td>.502</td>
</tr>
<tr>
<td>Total</td>
<td>78.430</td>
<td>60</td>
<td>.055</td>
</tr>
</tbody>
</table>

* represents for a p value at .05

As seen from the Table 5, markedly different from other statistical findings, the chi-square results yielded a statistically significant difference between NWs and NNWs only in the category of adverbial boosters ($X^2(30)=49.076$, $p=.015$) while a significant result was not found in other categories: modal boosters frequency ($X^2(16)=19.304$, $p=.253$); verbal boosters frequency ($X^2(7)=11.782$, $p=.108$); adjectival boosters frequency ($X^2(30)=32.902$, $p=.327$); determiner/quantifier boosters frequency ($X^2(21)=27.901$, $p=.143$); and noun boosters frequency ($X^2(7)=6.329$, $p=.502$). Furthermore, a statistically significant difference was not found between NWs and NNWs in terms of total boosters ($X^2(60)=78.430$, $p=.055$), which is to say both groups had similar booster frequencies.

### 3.2. Qualitative Analyses

#### 3.2.1. Native Writers’ Findings of Qualitative Analyses

**MODALS** Together with directives such as must and need to, the qualitative analyses showed that five modal boosters (including auxiliary verb will) were used throughout the NW corpus, which chronologically are has/have to, must, need to, cannot, and will. Some authentic examples regarding the use of these modal boosters are provided below:

1. *individual speakers have to use their L1.*
2. *English must reflect the cultural norms of its speakers.*
3. *we need to consider adopting a more social perspective of SLA*

**VERBAL BOOSTERS** The qualitative examination of NW sample data showed that NWs do not have a marginal tendency in using verbal boosters in their academic writings. Also, it was seen that NWs inclined to use the verbal boosters of confirm, prove, and verify more than other verbal boosters. The examples demonstrate how NWs committed to their statements through verbal boosters.

4. *Data from the case studies..... confirm the impression that...*
5. *(5) the approach that served them well in the classroom will prove equally effective in the office.*
6. *(6) From these figures we can verify that...*

**ADJECTIVAL BOOSTERS** Of all adjectives, a few were more robustly used. For instance, the adjectives important, apparent, clear, obvious, and significant are used more frequently when compared to other adjectival boosters. Below, you may find authentic usages of adjectival boosters belonging to NWs:

7. *An error on a page is an important opportunity in acquisition.*
8. *It became apparent that...*
It is clear that...

**ADVERBIAL BOOSTERS** The use of some adverbs outperformed the use of other adverbs. The mostly preferred adverbs acting as boosters are always, apparently, explicitly, obviously, strikingly, and significantly. NWs’ real uses of adverbial boosters are as follows:

(10) ...the research questions are *always* conceived from adult perspectives...
(11) ...teachers *apparently* err on the side of caution.
(12) ... it *significantly* differs from that...

**QUANTIFIERS / DETERMINERS** It was explicitly understood that some quantifiers/determiners were utilized more than others as it was the case in other boosting categories. Mostly used quantifiers/determiners by NWs are shown in the examples collected from the corpus:

(13) The first three articles in this issue all address gender aspects of leadership.
(14) I have learnt a huge amount of new words.
(15) ... this would very much depend on...

3.2.2. Non-native Writer’s Findings of Qualitative Analyses

**MODALS** Five modals (including auxiliary verb will) were detected in NNW corpus, which functioned as strong boosters. These are cannot, has/have to, must, need to, and will. NNWs used “cannot” with an aim of mentioning the impossibility in the statement. The examples give deeper insight into understanding the authentic uses of modal boosters.

(16) Without motivation, student achievement cannot be ensured.
(17) the students *have to* pass an exam in order to be...
(18) ... the equality of regression slopes also *must* be tested...

**VERBAL BOOSTERS** The results indicated that eleven verbal boosters were used by NNWs in their academic articles. The results showed that NNWs generally used confirm, demonstrate, and prove in order to boost their statements and increase their authorial stance over the claim or on seemingly general utterances. It was understood from the qualitative analyses that NNWs largely use verbal boosters in order to persuade the reader to the truthiness of their claims, or to the importance and necessity their articles.

(18) The results, once more, prove that there is a...
(19) ...the system of rules ensures that...
(20) ... the researchers confirmed this assumption...

**ADJECTIVAL BOOSTERS** As it was in NW corpus, NNWs use a large number of adjectival boosters in order to commit to their statements or to create persuasiveness in the readers. The analyses proved the high inclinations of NNWs on using adjectives while boosting their statements in the process of writing. As seen from the examples, NNWs used the adjectives apparent, clear, crucial, effective, important and, key much more than any other adjectives while making assertive or persuasive statements. Below you may find some authentic examples:

(21) It is also *apparent* that the rates of...
(22) She makes her point very *clear*...
(23) ... contexts have a *crucial* impact on...

**ADVERBIAL BOOSTERS** The findings proved that adverbial boosters are rather important for NNWs in order to make a boosting statement or commitment to their say. Also it was detected that NNWs are prone to using some adverbial boosters marginally more than others, which are all, always, completely, effectively, obviously, and significantly.

(24) ...all learners go through the same learning stages.
(25) The ELP was always integrated with the daily work of...
(26) what I am completely against is...

QUANTIFIERS / DETERMINERS Findings proved a high tendency of using quantifiers/determiners in NNW academic writing such as a lot of, quite, and all. For a better insight, you may see the authentic examples below:

(27) It is quite necessary for the participants to...
(28) Such clauses occur quite frequently in...
(29) All these studies put forward the remarkable influence of...

NOUNS It is interesting that NNWs used noun boosters more than NWs, when the case is lexical variety. Also, it was seen that noun boosters are used through –that clause phrases. Below you see the examples collected in the NNW corpus.

(30) ...formal in-service training is a must for...
(31) It is an icebreaker of faulty pronunciation.
(32) These studies have provided compelling evidence.

4. Discussion

Basically, this study aimed to explore the differences and similarities between native and non-native writers of English in terms of their lexical booster usage. Through comparison and contrast, it is expected to provide a deeper insight into understanding how and to what extent native and non-native writers use the lexical boosters and to investigate whether there was a link between native-fluency in academic writing and the use of lexical boosters.

Although the results demonstrated that native writers of English used more boosters than non-native writers in all sections as well as in total, the test results showed a statistically significant difference only in the category of adverbs. Akbaş (2012) found a consistent result with the present study. According to his results, Anglophone writers have a higher average of boosters while writing dissertation abstracts when compared to Turkish writers. The results can be construed that Anglophone and Turkish writers statistically have a similar inclination towards booster use in academic writing. A similar study (Kim & Suh, 2014) measured boosting devices in two corpora, the first of which is Korean speakers of English and the latter is native speakers of English. They found a similar result in that there is no statistically significant difference between two corpora in the category of adverbial boosters.

By changing his data source, the author (Akbas, 2014) compared Anglophone writers’ and Turkish writers’ discussion sections but this time he found that Turkish writers have a higher mean frequency of boosted sentences than Anglophone writers, which bellied with the present study. The reason for differentiation could be explained by taking the source of data into consideration. He found two contrastive differences when the data source altered; from abstract to discussion, which means that writers’ authorial stances may show differences across sections of an academic writing. Similarly, in her cross-sectional study, Vassileva (2001) compared articles of Bulgarian English and Native English. She found frequency differences across introduction, discussion, and conclusion in terms of using boosting devices. Unlike Vassileva’s research, the present study did not make a distinction between sections but analyzed an academic article fully. That is why; the present results could show variance with other studies that dissected articles. Studies that investigated the whole article without dividing the sections had similar results with the present study. For example, a study that aimed to detect authorial commitment (Yağız & Demir, 2015) compared non-native writers and Anglophone writers through a small scale data, and revealed similar findings in tune with the present study.
It was substantiated that Anglophone writers had higher booster diversity than non-native writers both in total and in all sections except for modals. Although there seems a great paucity of studies gauging native and non-native speakers’ lexical richness in academic discourse, non-native writers’ lower lexical variety is not a new occasion. The relationship of lexical richness with other linguistic skills such as oral performance (Lu, 2012), writing proficiency (Azodi, 2014), and reading performance (Mehdi & Salahshoor, 2014) had already been investigated. However, an outright investigation regarding lexical diversity in using hedges and booster from the aspect of writers’ nativeness seems almost non-existent in the literature.

4.1. Pedagogical Implications

Referring to the literature and the findings of the present study, we know that discourse devices are lexical conventions that embellish academic texts, and the ability to use discourse devices is commensurate with language proficiency. Among all discourse devices, the boosters come into prominence.

In view of the literature and the findings of the present study it is understood that non-native writers usually avoid being assertive in their scientific texts, which leads to invisibility of authorial stance over the claims made. Below you may find a few suggestions on how and why to use boosters in scholarly writing:

1. What must be kept carefully in mind at the very outset is the necessity of equilibrium between overuse and underuse of boosters in academic writings. Whereas underuse of boosters in a scientific text may cause some credibility problems, too many of which, particularly on high level claims may lead to much more trouble for the writer. To speak profoundly, it is a truth that boosters in a text represent for the writer’s self-confidence with respect to the plausibility of his/her statements (Holmes, 1982); however, over self-confidence does not raise the prospect of credibility; to the contrary, it creates a suspicion in readers’ minds about factuality and truth of the claim made.

2. Since they may over-rely on their L1 rhetorical style, quite a few L2 writers of English incline to construct academic texts that are somewhat inconsistent with the norms and expectations of the target discourse community (Lafuente-Millan, 2014). It is possible to have such an intercultural effect of L1 rhetorical style on L2 rhetoric, which is called “hybridization phenomenon” --a mixing of local and Anglophone rhetorical practice-- firstly introduced by Perez-Liantada (2010). The writer should fully be aware of that hidden influence in order not to constitute blurring rhetorical practices in academic texts, and should prevent L1 influence while constructing an assertive sentence through boosters.

3. The present study compiled a list of boosters (appendix A.) with a purpose of presenting a well-ordered word list that may be used in non-native writers’ academic productions. The ready-made lists of boosting devices may be of great importance in order to facilitate writers’ effort to find the correct rhetorical word without leaving a stark mark. The use of that list is highly recommended for particularly NNWs.

4. The writers should be certain about whether they present observed facts or make interpretation, which is a situation that wholly determines the degree of authorial involvement. If it is the matter of presenting the observed facts, some weight through intensifiers listed in appendix A may be delivered in order to create a moderate commitment over the audience, which is expected to call the persuasion power into being.

5. The genre, discipline, text type, and the issue may require different authorial involvement. For instance, while some fields of academy necessarily call for a strong authorial commitment, the
same authorial commitment or certainty in other disciplines may be deadly for the writer, who possibly will receive disclaimer responses, counter/response letters, harsh criticism etc. Specifically, a very tentative language with mitigating statements, lots of epistemic modals, and ambiguous statements in hard sciences may not be a much acceptable situation from the aspect of claim reliability (cf. Vázquez & Giner, 2008). In a similar vein, an academic text crammed with intensifiers and amplifiers on an abstract issue or in pure science will not get any kudos from the readers because the concept of truth is rather tangible in soft science (for some exceptions see Peacock, 2006; Behnam & Mirzapour, 2012; Khedri, Ebrahimi, & Heng, 2013). Briefly, your rhetorical style cannot completely be independent from the genre, discipline, text type, and the issue.

6. Apparently, the matter of culture is also a significant factor in determining a writer’s rhetorical style. In this connection, Yang (2013) drew a conclusion that Chinese-authored academic texts tend to be more precise with full of participation in their statements. However, the same issue committed by a writer from a different culture background may end itself up with a production highly tentative (cf. Uysal, 2012). Therefore, the culture should not be a determinant factor of rhetoric in scholarly writing; on the contrary, it should be intuitively known that academe has its own unique and distinctive style of discourse, which is a mutual equilibrium between being assertive and tentative. Therefore, the present study suggests that each writer should adopt stylistic and rhetoric appropriateness by getting rid of his/her own unobtrusive cultural impacts.

7. Plenty of cross-sectional studies which investigated sectional differences in terms of including meta-discourse devices proved that there are significant differences among sections in scientific articles. This may add contribution to a scientific writing to expand its sphere of influence. A certain language used in the introduction part of an article may prevent audience from having a curiosity to read the whole text. Therefore, the amount of boosting can be more tolerable in the sections of results and discussions than other parts of an article. Shortly, the sectional use of commitment in an academic writing should not be stable throughout all sections, but should show variance in amount (cf. Vassileva, 2001: Hamamcı, 2007: Salek, 2014: Yağız & Demir, 2014: Biook & Mohseni, 2014).

8. The present study suggested some lexical boosters in Appendix A. On the top of boosting at lexical level, phraseological structures such as embedded clauses, if clauses or clauses with dummy subject it may be helpful.

9. A synonym and antonym dictionary that a writer refers to should give profound detail with authentic usage of words. Therefore, a thesaurus dictionary may be of helpful in order to cover that need.

5. Conclusion

The results proved Anglophone writers’ numerical superiority to non-native writers in terms of boosting devices. The less use of boosting appears to be in connection to insufficient awareness regarding the paramount importance of it. In that sense, studies aiming to evoke awareness to the importance of rhetorical devices in academic texts are of paramount significance. In a similar vein, the present study aimed at increasing the visibility of rhetorical devices in particular for non-native writers. Accordingly, a list of boosters was provided. It is highly expected that non-native writers could get advantage of the list in the course of composing a scientific text.
Another significant finding which may be a reference point for further research is that Anglophone writers are prone to writing their academic texts with a higher lexical variety when compared to non-native writers.

The final note-worthy events in the present study are the suggestions that were mooted for further research and the pedagogical implications about how to use boosters in academic writings. As they are in other studies, the pedagogical implications are expected to gain favour for particularly non-native writer.

References


Appendix A
List of Boosters

### Modal Boosters

1. Be to+infinitive
2. Have/has to
3. Must
4. Need to
5. Will

### Verbal Boosters

1. Ascertain
2. Assure
3. Attest
4. Authenticate
5. Back up
6. Bear out
7. Boost
8. Conclude
9. Confirm
10. Confute
11. Corroborate
12. Convince
13. Demonstrate (prove)
14. Determine
15. Deserve
16. Disprove
17. Guarantee
18. Ensure
19. Entrance
20. Essentialise
21. Evidence
22. Flourish
23. Establish
24. Find
25. Invalidate
26. Justify
27. Make sure
28. Perfect
29. Prove
30. Secure
31. Substantiate
32. Testify
33. Transfix
34. Uphold
35. Validate
36. Verify
37. Vindicate
38. Vouch

### Adjectival Boosters

1. Absolute
2. Absorbing
3. Abundant
4. Accurate
5. Action-packed
6. Acute
7. Adamant
8. Admirable
9. Adorable
10. Aesthetic
11. All-embracing
12. All-encompassing
13. All-inclusive
14. All-out
15. Alluring
16. Amazing
17. Ample
18. Angelic
19. Apodictic
20. Apparent
21. Appealing
22. Appreciable
23. Arresting
24. Assertive
25. Assiduous
26. Assured
27. Astonishing
28. Astounding
29. Attractive
30. Authoritative
31. Awesome
32. Awful
33. Axiomatic
34. Barefaced
35. Barnstorming
36. Beauteous
37. Bewitching
38. Blatant
39. Breathtaking
40. Burning
41. Captivating
42. Categorical
43. Ceaseless
44. Certain
45. Charming
46. Chief
47. (un)clear
48. Clear cut
49. Climactic
50. Compelling
51. Comprehensive
52. Compulsive
53. Compulsory
54. Conclusive
55. Concrete
56. Confident
57. Considerable
58. Consistent
59. Conspicuous
60. Constant
61. Consummate
62. Continual
63. Continuous
64. Convincing
65. Coruscating
66. Credible
67. Critical
68. Crucial
69. Curious
70. Dazzling
71. Decided
72. Decisive
73. Definite
74. Definitive
75. Demonstrable
76. Demonstrative
77. Determined
78. Direct
79. Distinct
80. Distinctive
81. Distinguished
82. Downright
83. Dramatic
84. Dreamy
85. Earnest
<p>| 87. Effectual | 125. Flawless | 163. Inelastic | 201. Newsworthy |
| 90. Eloquent | 128. Full-scale | 166. Inflexible | 204. Noticeable |
| 104. Exact | 142. Ground breaking | 180. Irresistible | 218. Picturesque |
| 106. Exceptional | 144. Harsh | 182. Large | 220. Piquant |
| 108. Exhilarating | 146. Immeasurable | 184. Life-claiming | 222. Pioneering |
| 111. Express | 149. Impressive | 187. Majestic | 225. Poetic |
| 112. Exquisite | 150. Imposing | 188. Major | 226. Poignant |
| 114. Extreme | 152. Impressive | 190. Manifest | 228. Perfect |
| 118. Far-reaching | 156. Inconvertible | 194. Meaty | 232. Predominant |
| 120. Fated | 158. Inductive | 196. Mesmeric | 234. Prepossessing |
| 121. Faultless | 159. Indispensable | 197. Mesmerizing | 235. Pressing |
| 122. Fervent | 160. Indisputable | 198. Mighty | 236. Prodigious |
| 123. Fine | 161. Indubitable | 199. Miraculous | 237. Professed |</p>
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<th>Adverbial Boosters</th>
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<td>Accurately</td>
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<td>Authoritatively</td>
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| 276. Stimulating  | 291. Thumping   |
| 277. Stony        | 292. Total      |
| 278. Strict       | 293. Transfixing|
| 279. Striking     | 294. Transparent|
| 280. Strong       | 295. Tremendous |
| 281. Stunning     | 296. Ultimate   |
| 282. Sublime      | 297. Unadulterated|
| 283. Successful   | 298. Unalloyed  |
| 284. Superior     | 299. Unambiguous|
| 285. Sure         | 300. Unanswerable|
| 286. Tempting     | 301. Unarguable |
| 287. Terrible     | 302. Unassailable|
| 288. Terrific     | 303. Unavoidable|
| 289. Thorough     | 304. Unbelievable|
| 290. Thoroughgoing| 305. Unbridgeable|
| 306. Uncanny      | 321. Unmistakable|
| 307. Unceasing    | 322. Unprecedented|
| 308. Unconditional| 323. Unqualified |
| 309. Uncontroversial| 324. Unquestionable|
| 310. Undeniable   | 325. Unreserved |
| 311. Undiluted    | 326. Untenable  |
| 312. Undisputed   | 327. Unstinting |
| 313. Undoubted    | 328. Unyielding |
| 314. Unequivocal  | 329. Urgent     |
| 315. Unerring     | 330. Vast       |
| 316. Unexpected   | 331. Vehement   |
| 317. Unaltering   | 332. Vigorous   |
| 318. Unforgettable| 333. Vital      |
| 319. Unique       | 334. Voluminous |
| 320. Ultra        | 335. Watertight |

| 336. Weighty     |
| 337. Well founded |
| 338. Well grounded|
| 339. Well-know    |
| 340. Whirlwind    |
| 341. Wholehearted |
| 342. Whopping     |
| 343. Wise         |
| 344. Wonderful    |
| 345. Wondrous     |
| 346. Word-perfect |
Quantifiers / Determiners

1. A considerable amount of
2. A good deal of
3. A great amount of
4. A great body of
5. A great deal of
6. A great many of
7. A great number of
8. A high number of
9. A huge amount of
10. A huge number of
11. A large amount of
12. A large body of
13. A large majority
14. A large number of
15. A lot of
16. A sizeable body of
17. A substantial amount of
18. A substantial number of
19. A vast number of

20. A very high level of
21. A very large number of
22. A wide body of
23. All
24. An established body of
25. Copious amount of
26. Enormous amount
27. Enormous size
28. Extensive amount of
29. Far more
30. Great majority

31. Greatest number of
32. Lots of
33. Many
34. Much greater
35. Much more
36. None of
37. Quite
38. Relatively large
39. So
40. So many
41. So much

Nouns

1. Certitude
2. Confirmation
3. Consistency
4. Corroboration
5. Demonstration
6. Endorsement
7. Eternity
8. Evidence
9. Exquisiteness
10. Fact
11. Guarantee
12. Icebreaker
13. Impossibility
14. Invalidation
15. Inviolability
16. Justification
17. Key
18. Lifeblood
19. Manifestation
20. Must
21. Necessity
22. Perpetuity
23. Plethora
24. Pre-eminence
25. Proof
26. Proof positive
27. Rigidity

Miscellaneous Boosters

1. All the time
2. As a matter of fact
3. At all times
4. Beyond dispute
5. Beyond doubt
6. Beyond question
7. Bound to happen
8. By all accounts
9. Each time
10. Every time
11. For all future time
12. For all time
13. For ever and ever
14. For good
15. For good and all
16. For sure
17. If truth be told
18. In all respects
19. In any case
20. In any event
21. In every respect
22. In every way
23. In reality
24. In the extreme
25. In the point of fact
26. In truth
27. To a fault
28. To a great extent
29. To a marked extent
30. To the fullest extent
31. To the maximum extent
32. To all appearances
33. On all occasions
34. On every occasions
35. One hundred percent
36. Out of ordinary
37. Out of this world
38. To perfection
39. Plain to see
40. Sure to happen
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<td>41. The entire time</td>
<td>44. Very inch</td>
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<td>42. To the hilt</td>
<td>45. Without doubt</td>
<td>48. Without fault</td>
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<td>43. Until the end of time</td>
<td>46. Without exception</td>
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Sözcüksel vurgulama yetkinliği ve İngilizce yazılan akademik metinlerde dil yabancılaşmasının olduğunu ve İngilizce olmayan yazarların akademik metinlerinde bir dil yabancılaşması oluştuğunuقبول. Bu çalışmanın dört amacı bulunmaktadır: (1) anadili İngilizce olan yazarlar ile anadili İngilizce olmayan yazarlar arasında istatistiksel manada sözcüksel vurgulama kullanılmadı ve vurgulama sözcüklerinin sayısı bakımından bir fark olup olmadığını bulmak; (2) yazarın sözcüksel vurgulama yetkinliği ile dilde yabancılaşmama arasında bir korelasyon olup olmadığını bulmak; (3) sözcüksel vurgulamanın kullanılmasi üzerine yazarlara çeşitli öneriler sunmak ve (4) yazarların dilde yabancılaşmasını için bir sözcüksel vurgulama listesi oluşturmak. Bu doğrultuda bu çalışma 100 anadili İngilizce olan yazarlar ve 100 anadili İngilizce olmayan yazarlar tarafından yazılan makaleyi inceledi. Sonuçlar istatistiksel manada bir fark olduğunu göstermiştir. Diğer bir önemli sonuc ise Anglofonik yazarların Anglofonik olmayan yazarlara göre daha çok vurgulama sözcük kullandığını göstermiştir.

Anahtar sözcükler: Akademik yazım; vurgulama; sözcük; dilde akıcılık; yazma

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