

A Contrastive Corpus-based Analysis of the Use of Reporting Verbs by Native and Non-native ELT Researchers*

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Abstract: Although there have been many studies comparing native and non-native researchers, few of those studies have been on the use of reporting verbs by Turkish EFL researchers. The purpose of this study is to investigate (1) the most frequently used reporting verbs by native and non-native researchers in ELT and functional and positional differences in the use of these reporting verbs, (2) if there are any overused reporting verbs in non-native ELT research articles with reference to native ELT research articles and (3) if there are any differences between native and non-native ELT research articles in terms of the syntactic patterning of the first three overused reporting verbs. To shed light on these research questions, two corpora of 160 ELT research articles published in peer-reviewed, international journals in the field of language teaching were compiled and analyzed. Out of these 160 research articles, 80 of them were written by non-native researchers, and the other 80 articles were written by their native counterparts. The findings indicated that some reporting verbs, like *revealed*, *indicated* and *observed* are overused by non-native researchers. Also, there are some differences in the use of reporting verbs in terms of syntactic patterning between the two corpora. The results of the study may help non-native researchers improve their academic writing skills.

Anahtar sözcükler

aktarma fiilleri,
derlem, akademik
yazma.

Anadili İngilizce Olan ve Anadili İngilizce Olmayan İngiliz Dili Eğitimi Araştırmacılarının Aktarım Fiilleri Kullanımlarının Karşılaştırmalı Derlem Temelli Analizi

Öz: Ana dili İngilizce olan ve olmayan araştırmacıların aktarma fiillerini kullanımını karşılaştıran birçok araştırma olmasına rağmen ana dili Türkçe olan araştırmacılar üzerinde yapılan az sayıda çalışma vardır. Bu çalışmanın amacı; (1) İngiliz Dili Eğitimi alanında çalışan, ana dili İngilizce olan ve Türkçe olan araştırmacıların en sık kullandığı aktarma fiillerini bulma, bu fiiller arasındaki işlevsel ve kullanım yerleri açısından farklılıkları araştırma, (2) ana dili Türkçe olan araştırmacıların ana dili İngilizce olan araştırmacılara kıyasla bazı aktarma fiillerini daha fazla kullanıp kullanmadığını araştırma ve (3) eğer fazla kullanılan fiiller varsa bunların en çok kullanılan üçünü sözdizimsel açıdan incelemektir. Bu araştırma sorularına cevap bulmak amacıyla İngiliz Dili Eğitimi alanından hakemli ve uluslararası yayın yapan dergilerden alınan 160 makaleden oluşan iki derlem oluşturulmuştur. Araştırmada *revealed*, *indicated* ve *observed* gibi bazı fiillerin anadili Türkçe olan araştırmacılar tarafından daha çok kullanıldığı tespit edilmiştir. Aynı zamanda, aktarma fiillerinin kullanımında sözdizimsel açıdan iki derlem arasında farklılıklar bulunmuş ve bunlar incelenmiştir.

1. Introduction

There are many studies conducted by non-native researchers in the field of ELT. These researchers need to follow new developments in the field and also because they mostly report their scientific findings in English, they certainly need to acquire English academic writing skills. Citing others' work is one of the essential parts of academic discourse. It helps the writer make intertextual connections for a successful argument, and create a link between their research and previous studies in the field. Moreover, it helps them create a new place in the related field of study (Charles, 2006; Hyland, 1999; Swales, 1990). While citing, writers need to use reporting verbs to present, criticize and question other writers' opinions and/or claims and to express theirs. Reporting verbs are grammatical devices, which writers need to express their stance in their studies (Hyland, 1999).

There has been a lot of research on reporting since Swales' (1990) pioneering work "Genre Analysis" and reporting has been studied in different aspects in literature. Some researchers conducted structural studies on reporting (e.g. Hyland, 1999; Pickard, 1995; Swales, 1981, 1990). Swales (1990) divided reporting structures as integral and non-integral. According to this division, when researcher's name appears in the citing part, it is called integral citation, and when it takes place outside the citing sentence, it is non-integral citation. Swales (1990) also made a distinction between reporting and non-reporting citation. Reporting citation means a citation including a reporting verb. Non-reporting citations are alternative ways of reporting which do not contain reporting verbs. By these distinctions, Swales (1990) provided a basis for studying reporting.

In addition to citation practices, reporting verbs have been investigated in terms of their structures, functions, forms, tense choice of them, patterns, semantic evaluation, usage differences between novice and expert or native and non-native researchers. All these studies highlight the importance of knowing how to use reporting verbs and supply beneficial implications for academic writing courses.

This study aimed to shed light on the use of reporting verbs comparing native and non-native researchers' use of reporting verbs. Unlike some studies investigating reporting verbs focusing on specific sections of research articles (Yeganeh & Boghayeri, 2015; Manan & Noor, 2014; Loi, 2012), in this study, all parts of the articles were included in the data, excluding texts associated with tables and graphics, references, abstracts and footnotes. In the study, the most frequently used reporting verbs by native and non-native ELT researchers and functional and positional differences in the use of those reporting verbs were analyzed. Also, whether there were any overused reporting verbs in non-native ELT research articles with reference to native ELT research articles was investigated. In addition, the differences between native and non-native ELT research articles in terms of the syntactic patterning of the first three overused reporting verbs was in the scope of the study. The results of the study were supposed to contribute to the literature on the use of reporting verbs and how to use them. In addition, non-native ELT learners and researchers would benefit from the results of the study to improve their academic writing skills.

2. Review of Literature

Similar to the present study, reporting verbs have been investigated in some studies (Malcolm, 1987; Shaw, 1992; Thomas & Hawes 1994; Thompson & Ye 1991). There are some studies on the tense of reporting verbs (Hanania & Akhtar, 1985; Malcolm, 1987; Shaw, 1992; Swales, 1990). The use of present, past and present perfect tenses was investigated in these

studies. Malcolm (1987) compiled 20 scientific articles and analysed tense choice. The results of the study revealed that when there is a general claim, present tense is used and past tense is used when there is not generality. As for present perfect tense, it was used for generalization about past events. Swales and Feak (2004) devised three major patterns in terms of the use of different tenses. They stated that past tense is used to refer to single studies, present tense is used as a reference to area of inquiry and present perfect tense is preferred to refer to the state of current knowledge. According to the findings of Weissberg and Buker's study (1990), in the findings of individual studies, past tense is preferred. The present tense is used when the information provided with citation is a scientific fact, in general statements and weak author prominent citations.

Another topic of interest about reporting verbs was their phraseological patterns and forms. Phraseological patterns in reporting clauses used in citation were investigated by Charles (2006). In her study, finite reporting clauses in that-clause were examined. Two corpora consisting of native speakers' theses in politics/international relations and materials science were used in this study. It was found that reporting clauses are frequently used in both disciplines and that they most frequently occur as integral citations with a human subject. Some other studies (Dubois, 1988; Hyland, 1999; Thompson, 1996) focused on reporting forms. Biomedical journal articles were compared by Dubois (1988) aiming at finding how scientists cited works in biomedical journal articles were used and he found four forms of reporting: direct quotation, generalization, summary and paraphrase. The study showed that most instances of reporting were in generalization and summary forms.

The functions of reporting have also been investigated by researchers. Three functions of reporting were proposed by Weissberg and Buker (1990); providing background information about the study, showing readers the familiarity of the writer with the area, and linking the study to research literature. According to Gilbert (1977), writers give references to previous works to persuade their readers and to indicate the validity and importance of the work reported. In addition to them, Petric (2007) compared the rhetorical citation functions in eight high-rated and eight low-rated master's theses in the field of gender studies, written in English as a second language. The results of the study showed that low rated theses had a tendency towards description rather than analysis and high-rated theses used citation in various rhetorical functions and for different purposes. Moreover, the frequency of the most commonly used reporting verbs and their functions in the introduction and literature review sections of research articles written by native and non-native writers were investigated by Yeganeh and Boghayeri (2015). They found that in both corpora, there was a frequent use of reporting clauses with a that-clause complement in reporting others' research and this structure was most frequently used in integral citation with a human subject.

Thompson and Ye (1991) focused on semantic evaluation in reporting verbs in more than 100 academic papers. They examined the introduction sections to find how reporting verbs are used by writers to report their own claims or ideas and their attitudes towards other researchers' claims. Reporting verbs were classified concerning denotation and evaluation. They created three categories in terms of denotation: textual, mental and research verbs. Similarly, in analysing the evaluative nature of reporting verbs, they found three factors: author's stance, writer's stance and interpretation. Thomas and Hawes (1994) analysed reporting verbs in medical journals. They compiled a corpus of 11 research articles and investigated reporting verbs in terms of their semantic categories. Their categorization of denotation of reporting verbs consisted of experimental/real-world activities, cognition

activities and discourse activities. As in Thompson and Ye's (1991) classification, their study indicated that there is a correlation between choice of verb type.

In addition to the studies on structures, functions, forms and semantic evaluation of reporting, the use of reporting verbs in different disciplines was another research area in literature. In his study, Hyland (1999) aimed to investigate the contextual variability of citation practices in eight different disciplines by using 80 research articles and interviewing experienced writers. He identified clear disciplinary differences in terms of how writers use citation, and how they reflect the reported information. The findings revealed that writers in humanities and social sciences tended to use more citation than writers in hard sciences. They also preferred to use integral structures and discourse reporting verbs more. In addition to these disciplinary differences, Hyland (1999) focused on the choice of reporting verbs used in the articles and found that nearly 400 different reporting verbs were used, and nearly half of them were used only once. He listed the most frequently used reporting verbs in each discipline and reported that in humanities and social sciences far more, more varied and more argumentative reporting verbs were used. He also explained the possible reasons for the use of different reporting verbs in different disciplines. Another similar study was conducted by Thompson (2000). He compiled a large-sized corpus which contained theses written in two departments at the University of Reading. The findings obtained from the study showed that the two sub-disciplines used citations in very different ways and in these two different disciplines' texts were constructed in different ways.

The use of reporting verbs was also analyzed in terms of the differences between expert and novice writers. Pickard (1995) investigated integral structure of reporting by focusing on how expert writers used citations. She did a concordance search to see how integral and non-integral citation structures were used compiling a small corpus of 11 Applied Linguistics articles. The results of the study showed what other reporting verbs were used by expert writers instead of "say", their distribution in integral and non-integral citation structures and the tense used in citation structures. In a similar way, Manan and Noor (2014) also analysed the use of reporting verbs by novice writers and they searched the most frequently used reporting verbs and their impact in M.A. theses. They based their study on six M.A. theses written by Malaysian ESL students. The results indicated that reporting verbs from the research acts category were more familiar for them than those from cognition and discourse acts. In addition, states from the discourse acts were the most frequently repeated verbs in the M.A. theses. On the other hand, Mansourizadeh and Ahmad (2011) aimed to explore the citation patterns practiced by expert writers and compare them to that of novice research writers. They based their study on a small corpus which consisted of 14 papers by seven novice and five expert writers from a university in Malaysia. All the papers were from the field of chemical engineering. Their findings revealed differences in two groups' citation practices in terms of citation functions and types. Novice group tended to use citation for attribution, and they preferred integral citation while the expert group used citation strategically for providing support and justifying their claims, with non-integral citation.

The use of reporting verbs by native and non-native researchers was compared in many studies to see the difference of practice between the two groups from different countries. Jafarigohar and Mohammadkhani (2015) analysed the use of reporting verbs by native and non-native writers in 63 articles on language teaching and applied linguistics. The results of their study showed that the overall number and frequency of reporting verbs of native and non-native writers were equal, but they showed differences in patterns and the choice of reporting verbs. They also found that native writers used more reporting verbs in direct

quotations than the non-native writers. Loi (2012) also did a corpus-based analysis on the use of citations and analysed the citation practices of Chinese and English research writers specifically in introduction parts of articles. The author found that Chinese research writers tended to use citation five times lower than the native researchers. In another study, reporting tendencies in the theses written by Chinese writers and native speakers of English were compared in terms of integrality and prominence, reporting forms, reporting verbs and functions of reporting (Zhang, 2008). The results pointed out more reporting statements were employed by English writers than Chinese writers. However, Chinese writers did not use as many integral and non-integral citations as Chinese writers. In both groups, non-integral citations were used more often. Oskueia and Kuhl (2014) also conducted a study to investigate the use of citation patterns among Iranian and native English MA thesis writers in applied linguistics. The results of their study revealed that Iranian writers used more citations than native English writers. Also, Iranian MA thesis writers focused on linguistic and grammatical features of citations, and they did not attach importance to functional features.

Similar to the studies mentioned above, the present study also focused on reporting. However, unlike many studies on the topic, this study aimed to provide important insights into the use of reporting verbs instead of citations. In other words, this study did not focus on the function of reporting verbs in citations, but investigated the diversity, functional and positional differences of reporting verbs by comparing native and non-native corpora. In order to compare native and non-native researchers in the use of reporting verbs, the following research questions were tried to be answered:

- 1) What are the most frequently used reporting verbs by native and non-native ELT researchers?
 - a) Are there any functional and positional differences in those reporting verbs?
- 2) Are there any overused reporting verbs in non-native ELT research articles with reference to native ELT research articles?
 - a) If yes, what are they?
 - b) If so, are there any differences between native and non-native ELT research articles in terms of the syntactic patterning of the first three overused reporting verbs?

3. Method

3.1. Corpus of the Study

In order to investigate the use of reporting verbs by native and non-native ELT researchers, two corpora, one for native ELT researchers and one for Turkish ELT researchers, were compiled. Only the research articles from peer-reviewed international journals, published between the years 2010 and 2016 were selected to make the corpora. The corpus of native speakers consisted of 80 articles from three scholarly journals; *ELT Journal*, *Applied Linguistics* and *TESOL Quarterly*. The corpus included 565.371 word tokens. This corpus was used as a reference corpus in the present study. The corpus of non-native ELT researchers was made up of 80 articles from 13 scholarly journals; *Australian Journal*, *CALICO*, *Journal of Pragmatics*, *Language Teaching Research*, *Modern Language Journal*, *Applied Linguistics*, *English Language Teaching*, *ELT Journal*, *Novitas-ROYAL*, *ReCALL*, *Studies in ELT*, *System* and *TESOL Quarterly*. The corpus included 439.224 word tokens.

3.2. Data Analysis Tool

To conduct analyses, AntConc 3.4.4. (for Windows) which was created by Laurence Anthony of Waseda University was used. It is a freeware concordance program for linguistic analysis of electronic texts (corpus linguistics) and is used to find and reveal patterns in language.

3.3. Data Collection Procedure and Analysis

Instead of using a large sized corpus like British Academic Written English (BAWE), a reference corpus was compiled specifically for this study as BAWE included essays and it would not be effective for focusing on reporting verbs. In order to compile the corpora, the articles of native and non-native ELT researchers were selected from prestigious journals in the field of ELT. By limiting the publication years of the articles to last 7 years, it was aimed to see the current use of reporting verbs in research articles. While creating native ELT researchers' corpus, writers' affiliations and their biodata were checked to determine if a writer was a native speaker of English or not.

First, to decide on the reporting verbs to be analyzed in the study, the reporting verb list prepared by the Writing Center of the University of Adelaide was employed (The University of Adelaide, 2014). Then the most frequently used reporting verbs by native and non-native ELT researchers were investigated and the most commonly used reporting verbs by native and non-native ELT researchers were listed. In addition, functional and positional differences in the two corpora were analyzed. Afterwards, the two corpora were compared to find overused reporting verbs by non-native ELT researchers conducting Keyness Analysis with the help of AntConc corpus analysis tool. As the reference corpus in this study was not a large corpus, Keyness scores were calculated based on Chi Square instead of Log Likelihood (e.g. Granger, 1998). After finding which reporting verbs were overused, the two corpora were compared in terms of grammatical use of the first three overused reporting verbs which were *revealed*, *indicated* and *observed*.

4. Findings

The first research question of the present study aimed to find out the most frequently used reporting verbs by native and non-native ELT researchers. In other words, the goal was to see which reporting verbs were mostly used by native ELT researchers, whether the non-native scholars preferred the same or different verbs mostly and whether the rank order of these verbs were the same or different in both corpora. In addition to these, the reporting function and the position; weaker, neutral or stronger, of these verbs were checked from the "Reporting Verbs Used in an Academic Writing" list of the Adelaide University (2014).

Table 1

The most frequently used reporting verbs by native and non-native ELT researchers

Order	Native				Non-native			
	R. Verb	Freq.	Function	Position*	R. Verb	Freq.	Function	Position*
1	find	350	Conclusion	N	find	409	Conclusion	N
2	report	145	Presentation	N	reveal	252	Presentation	N
3	discuss	126	Discussion	N	report	251	Presentation	N
4	note	125	Presentation	N	indicate	201	Description	N
5	argue	108	Argument & Persuasion	S	compare	187	Evaluation & Examin.	N
6	suggest	91	Suggestion	N	show	168	Presentation	N

7	observe	89	Presentation	N	state	128	Presentation	N
8	examine	81	Evaluation & Examination	N	examine	119	Evaluation & Examin.	N
9	show	66	Presentation	N	investigate	121	Evaluation & Examin.	N
10	investigate	58	Evaluation & Examination	N	suggest	109	Suggestion	N

* N = Neutral Position, S = Stronger Position

As it can be seen in Table 1, there were some overlaps between the two corpora in terms of the most frequently preferred reporting verbs. However, for most of them, the rank order of the verb was different in the reference corpus and the non-native researchers' corpus. The most popular reporting verb for both native and non-native ELT researchers was *find*. While it had 350 instances in the native ELT articles, it was used in 409 instances in the non-native ELT articles. It is a reporting verb that has the function of conclusion and it has a neutral position. While the second reporting verb preferred by the native ELT researchers was *report* with 145 instances, for non-native ELT researchers it was the third one with 251 instances. *Report* has the function of presentation and like *find* it has a neutral position. In addition to *find* and *report*, there were five more reporting verbs that were preferred greatly by both native and non-native scholars. They were *suggest*, *examine*, *show* and *investigate*. *Suggest* was the sixth most preferred reporting verb in the native ELT articles with 91 instances, and it was the tenth one in the non-native ELT articles with 109 instances. Although its rank order was different in the two corpora, there was not a huge difference in terms of the number of instances between the two corpora. When the reporting function and position of the verb was evaluated, it was seen that it has a function of suggestion with a neutral position. The eighth popular reporting verb for both native and non-native articles was the same, *examine*. While it had 81 instances in the reference corpus, it had a higher frequency in the non-native corpus, 119. It has a function of evaluation and examination and a neutral position. The next popular reporting verb *show* had the ninth rank order in the reference corpus with 66 instances. However, it was more frequently used by the non-native scholars as it had the sixth rank order with 168 instances. Like *report*, it has a function of presentation with a neutral position. The last reporting verb that was popular in both corpora was *investigate*. Although its rank order was not so different in the two corpora, it was the tenth in the native researchers' corpus and ninth in the non-native scholars' corpus. Its frequency was quite different; 66 in native and 121 in non-native ELT articles. In terms of function and position, like *examine*; it has evaluation and examination function with a neutral position.

When the reporting verbs that were popular in both corpora were evaluated in terms of position it was seen that all of the six verbs were in a neutral position. However, their functional evaluation showed that they were examples of four different functions. For conclusion function, both for native and non-native ELT researchers, the most popular verb was *find* while it was *suggest* for suggestion function. However, for the functions of presentation and evaluation & examination, there were two popular verbs. *Report* and *show* were the most popular verbs for presentation function in both of the corpora. For the evaluation and examination functions, the two most popular verbs in both corpora were *examine* and *investigate*.

In addition to the six most preferred reporting verbs common in the two corpora, there were also four different verbs that were frequently used in each of the two corpora. In native ELT articles, *discuss* was the third most preferred reporting verb with 126 instances, *note* was the

fourth with 125 instances, *argue* was the fifth with 108 instances and *observe* was the seventh with 89 instances. In non-native ELT articles, they were not among the most preferred verbs. Functional analyses results of these verbs show that *note* and *observe* have the function of presentation, *discuss* has the function of discussion and *argue* has the function of argument and persuasion. In terms of position, it was seen that all of them, except for *argue*, have a neutral position. *Argue* is the only reporting verb that has a stronger position in both of the corpora, the others all having a neutral position.

The other four most preferred verbs in the non-native ELT articles were *reveal* with 252 instances, *indicate* with 201 instances, *compare* with 187 and *state* with 128 instances. *Reveal* was the second most preferred reporting verb by the non-native ELT researchers and it has the function of presentation with a neutral position. The fourth popular reporting verb for non-native ELT researchers was indicate and it has a description function with a neutral position. The fifth and seventh most preferred reporting verbs in non-native ELT articles were *compare* and *state*, and they had the function of evaluation & examination and presentation, respectively. Both of these verbs had a neutral position.

The second research question of the study aimed to find out if there were any overused reporting verbs and if yes, which reporting verbs were overused by non-native ELT researchers with reference to native ELT researchers. To answer this question Keyness Analysis was conducted with the help of AntConc corpus analysis tool. As the reference corpus in this study was not a large corpus, Keyness scores were calculated based on Chi Square instead of Log Likelihood (e.g. Granger, 1998). By looking into the Keyness analysis results, the top 10 overused reporting verbs were selected. The words are presented in Table 2.

Table 2

Top ten overused reporting verbs by Keyness

KEYWORD	NON-NATIVE C.		NATIVE R.C.		Keyness
	Frequency	Normalized Frequency*	Frequency	Normalized Frequency*	
REVEALED	252	573.7	69	122	157.836
INDICATED	201	457.6	72	127.3	99.222
OBSERVED	215	489.4	88	155.6	90.081
COMPARED	187	425.7	75	132.6	78.865
STATED	137	311.9	42	74.2	75.180
SHOWED	168	382.4	66	116.7	74.949
MENTIONED	132	300.5	49	86.6	62.749
REPORTED	251	571.4	143	252.9	62.220
ANALYZED	119	270.9	41	72.5	61.100
INVESTIGATE	121	275.4	58	102.5	57.404

*Normalized per million words

As the corpus sizes of the two corpora were not exactly equal, the raw frequencies of occurrence of words and normalized figure of the number of occurrences per 1.000.000 words are both given in Table 2 (e.g. Fraysse-Kim, 2010). The most overused reporting verb was found to be *revealed* with 157.836 Keyness value. The frequency of it in non-native ELT researchers' corpus was 252 while it was 69 in the reference corpus. The Keyness value for the second overused reporting verb, *indicated*, was 99.222 and its frequency was 201 in the non-native ELT researchers' corpus and 72 in the reference corpus. While the third overused reporting verb in the table was analysed, it was seen that the frequency of *observed* was 215

and 88 in the non-native scholars' corpus and the reference corpus respectively, with 90.081 Keyness value. The other overused reporting verbs were *compared*, *stated*, *showed*, *mentioned*, *reported*, *analyzed* and *investigated*. Their frequency in both corpora and Keyness values can be seen in Table 2.

The results of the study revealed that the first three overused reporting verbs by non-native ELT researchers were *revealed*, *indicated* and *observed*. To see if there were any differences between native and non-native ELT corpora in terms of the syntactic patterns of these three verbs, further analyses were conducted. The corpora of native and non-native ELT researchers were deeply investigated by referring to concordance and cluster analyses to elicit the syntactic pattern differences and their frequencies for each of the three reporting verbs.

Table 3

Syntactic patterning of "revealed" in both native and non-native corpora

Verb: Revealed	Non-native C.	Freq.	Native C.	Freq.
Total	252	%	69	%
Revealed + complementizer	156	61.9	24	34.7
Revealed + noun phrase	85	33.7	26	37.6
Passive voice	11	4.36	19	27.5

As it is shown in Table 3, *revealed* was used in three different grammatical structures; it is followed by a complementizer or a noun phrase in active sentences or it is used in passive sentences. Although it was expected to find *revealed* in passive sentences followed by a complementizer, no instances of that kind were found. Concordance and cluster analyses results showed that non-native ELT researchers tended to use *revealed* followed by a complementizer more than followed by a noun phrase or in passive voice. Out of 252 instances of *revealed* in non-native researcher's corpus, 156 of them were that of *revealed* followed by a complementizer, it made up of 61.9% of the total use. The instances of *revealed* followed by a noun phrase in non-native corpus were 85, 33.7% of the total use and those of passive sentences were 11. It meant just 4.36% of *revealed* used in passive sentences. As it is shown, use of *revealed* was not evenly distributed in terms of these three structures in the corpus of non-native ELT researchers.

When Table 3 is analyzed, it is also seen that native ELT researchers did not use *revealed* as much as non-native ELT researchers. There were only 69 instances of it in the reference corpus and their frequencies in terms of the mentioned structures seemed equally distributed; 34.7% followed by a complementizer, 37.6% followed by a noun phrase and 27.5% used in a passive sentence.

In total use of *revealed*, there was a remarkable difference between native and non-native ELT researchers as it was overused by non-native scholars. Instances of *revealed* followed by a complementizer constituted 61.9% of non-native scholars' total use, while it was 34.7% in that of native ELT researchers. It can be observed that there was an obvious difference between the two corpora in terms of *revealed* followed by a complementizer. The frequencies of *revealed* followed by a noun phrase were not so different. It was 33.7% in non-native's corpus and 37.6% in native's corpus. The frequency difference of using *revealed* in a passive sentence was also remarkable between native and non-native ELT researchers. It was 4.36% in non-native scholars' corpus and 27.5% in native scholars' corpus. Table 4 shows sample concordance lines from non-native and native article corpora for the word *revealed*.

Table 4

Sample concordance lines from non-native and native corpora for "revealed"

Non-native ELT Article Corpus	of English. Önen's (2007) study also	<i>revealed</i>	that the proficiency level of participants,
	In fact, Lai and Zhao's study	<i>revealed</i>	that participants who communicated through
	For instance, Erman and Warren (2000)	<i>revealed</i>	that idioms are used to explain
	2008a; Paquot, 2013, 2014; Salazar, 2010)	<i>revealed</i>	the overuse of some lexical bundles
	respect, the results of the current study	<i>revealed</i>	several important aspects of L2 lexicon
	One of the most interesting issues	<i>revealed</i>	in the data was the majority
Native ELT Article Corpus	classrooms (Duff 1995). Duff's analysis	<i>revealed</i>	how these practices were socializing both
	(1995; Ochs 1984, 1988; Schieffelin 1990)	<i>revealed</i>	how feedback practices reflect underlying cultural
	(1992) examination of New Zealand English	<i>revealed</i>	that women use GE's more extensively than
	and Cheng's (2010: 461) corpus-based study	<i>revealed</i>	major differences' between speech acts in
	Sociolinguistic investigations of humor have	<i>revealed</i>	a great deal about how humor
	computer-based analysis of the transcripts	<i>revealed</i>	70 references to writing-related issues, 59

As for the second overused reporting verb *indicated*, the analyses pointed out the differences in the use of the verb between non-native and native ELT researchers. The verb was used 201 times by non-native ELT researchers and 72 times by native ELT researchers. It was used in four different grammatical structures; it is followed by a complementizer or a noun phrase in active sentences; it is used in its intransitive form and it is used in the passive form. It should also be noted that two instances in the sub-corpus and one instance in the reference corpus belonged to both *indicated* + complementizer and *indicated* in passive voice forms.

Table 5

Syntactic patterning of "indicated" in both native and non-native corpora

Verb: Indicated	Non-native C.	Freq.	Native C.	Freq.
Total	201	%	72	%
Indicated+ complementizer	116	57.7	34	47.2
Indicated + noun phrase	53	26.3	12	16.6
Indicated (intransitive)	3	1.4	4	5.5
Passive voice	31	15.4	23	31.9

The results of concordance analyses showed that non-native scholars mostly used *indicated* followed by a complementizer more than followed by a noun phrase, in its intransitive and passive forms. Out of 201 instances of *indicated* in the sub-corpus, 116 of them were that of *indicated* followed by a complementizer, it made up of 57.7% of the total use. The instances of *indicated* followed by noun phrase in non-native corpus were 53, 26.3% of the total use and those of passive sentences were 31. It meant 15.4% of *indicated* used in passive. Of the total use of *indicated* in the sub-corpus, there were only 3 instances of it used in its intransitive form, constituting 1.4%.

As Table 5 demonstrates, native ELT researchers mostly preferred using *indicated* followed by a complementizer like non-native ELT researchers. Out of 72 instances of it, 47.2% was the use of it followed by a complementizer. The second popular structure pattern in the reference corpus was the use of *indicated* in a passive voice with 23 instances. The use of *indicated* followed by a noun phrase made up of 16.6% of the total use and that of it in its intransitive form had the frequency of 5.5%.

When the two corpora were compared, a similar tendency in the syntactic patterning of *indicated* was observed. Both native and non-native ELT researchers mostly preferred using *indicated* with a complementizer. Although the second preferred syntactic pattern in the sub-corpus was using it with a noun phrase (26.3%), for native ELT researchers it was the passive voice (31.9%). While using *indicated* followed by a noun phrase did not have a high frequency in the reference corpus (16.6%), it had the frequency of 26.3% in the sub-corpus. Neither non-native nor native researchers preferred the intransitive form of the verb. Only 1.4% of the instances of the verb were in its intransitive form in the sub-corpus and the percentage was 5.5% for the instances in this form in the reference corpus. Table 6 shows sample concordance lines from non-native and native article corpora for the word *indicated*.

Table 6

Sample concordance lines from non-native and native corpora for "indicated"

Non-native ELT Article Corpus	for instance, Ehrman and Oxford (1995)	<i>indicated</i>	that high achieving students utilize the
	Mills, Pajares and Herron (2006: 276)	<i>indicated</i>	that listening anxiety was positively related
	on cultural awareness and their results	<i>indicated</i>	significant impact of cultural awareness. In
	performance researching. As has been	<i>indicated</i>	different processes represent different ways of
	benefits of metacognition. As it is	<i>indicated</i>	by Seferoglu and Uzakgoren (2004), Turkish
Native ELT Article Corpus	this hypothesis as well. The results	<i>indicated</i>	that both the experimental and control
	affected by age? Numerous studies have	<i>indicated</i>	that performance in the non-dominant language
	score Indian-language-accented English. They	<i>indicated</i>	that they were confident in scoring
	(Plass, 1997, p. 8). Research has long	<i>indicated</i>	that processing images with an aural
	also Kamhi-Stein, 2004; Pavlenko, 2003). Xia	<i>indicated</i>	strong feelings of powerlessness in situations
	reading. Many of these problems, as	<i>indicated</i>	by the computer-based analysis, stemmed

The third overused reporting verb, *observed* was used in both native and non-native corpora in six different forms. It was followed by a complementizer or a noun phrase; it was used in its intransitive and past participle form. Also, it was used in passive sentences and only one example of its use in causative form was found in the reference corpus. It is noteworthy to mention that 23 instances in the non-native corpus and 32 instances in the reference corpus belonged to both *observed* + complementizer and *observed* in passive voice forms. Table 7 shows the syntactic patterning of *observed* in both corpora.

Table 7

Syntactic patterning of "observed" in both native and non-native corpora

Verb: Observed	Non-native C.	Freq.	Native C.	Freq.
Total	215	%	88	%
Observed+ complementizer	34	15.8	8	9
Observed + noun phrase	21	9.7	11	12.5
Observed (intransitive)	6	2.7	13	14.7
Observed in passive voice	155	72	41	46.5
Past participle adjective	22	10.2	14	15.9
Causative	0	0	1	1.1

When the concordance analyses were investigated, it was seen that the frequencies of the six syntactic patterns used with the verb were not evenly distributed in the sub-corpus. Non-native ELT scholars mostly used it in a passive form, with 155 out of 215 instances. In other words, more than half of the total use of *observed* was in the passive voice form, 72%. On the other hand, there were not any examples of its causative form in the sub-corpus. The other

patterns of the third overused reporting verb had similar frequency distributions. The syntactic pattern of *observed* followed by a complementizer had 34 instances with 15.8% and use of it followed by a noun phrase had 21 instances with 9.7% in the non-native corpus. *Observed* was also used in past participle adjective form in 22 instances and it represented 10.2% of the sub-corpus. The second least preferred pattern of the verb in non-native ELT scholar's corpus was its intransitive form. It had only 6 instances composing 2.7% of the total use.

In the reference corpus it was found that native ELT researchers mostly used *observed* in passive voice, with 41 instances. Nearly half of the use of *observed*, 46.5% was in passive voice. The least preferred was its causative form and there was only one example of it in the corpus, with the frequency of 1.1%. In the reference corpus, *observed* followed by a complementizer, followed by a noun phrase, intransitive and past participle adjective forms also had different frequency distributions; 9%, 12.5%, 14.7% and 15.9% respectively.

When the native and non-native ELT research articles were compared in terms of the use of *observed*, both similar and different practices were found. The two corpora were similar as the most and the least preferred syntactic patterns were the same. The most preferred one was *observed* in passive voice and the least popular one was its causative form. In fact, the causative form of *observed* did not have any instances in the sub-corpus and only one in the reference corpus. However, when the frequency of its use in the passive voice was compared, there was a difference between the two corpora. It was 72% in the sub-corpus and 46% in the reference corpus. It showed that non-native ELT researchers used this pattern more than the native ELT researchers although in both corpora this pattern was the most preferred one. While the second preferred pattern in the non-native corpus, *observed* + complementizer had the frequency of 15.8%, it constituted 9% of the total use of the verb in the reference corpus. Past participle adjective form of the verb was used more by the native ELT scholars than by the non-native ELT researchers. Its frequency was 10.2% in the sub-corpus while it was 15.9% in the reference corpus. *Observed* followed by a noun phrase was the fourth preferred pattern in the sub-corpus with 9.7% of frequency, but it had a higher frequency in the reference corpus, 12.5%. Another difference was in the intransitive form of it. Although it was not a preferred pattern in the sub-corpus, only constituted 2.7% of the total use, it had a higher frequency in the reference corpus, 14.7%. To conclude, it can be said that although the most and the least preferred syntactic patterns of *observed* were the same in the two corpora, their frequencies and the other patterns' frequencies point to differences. Sample concordance lines from non-native and native article corpora for the word *observed* are given in Table 8.

Table 8

Sample concordance lines from non-native and native corpora for "observed"

Non-native ELT Article Corpus	(monitoring). Similar cause identification was also	<i>observed</i>	by Bada (in press). These two categories
	the oral mode. Similar results were	<i>observed</i>	in Kaneko (2009). This finding of our
	difference was examined, Turkish scholars were	<i>observed</i>	to rely merely on tables and
	him to think critically. Beauvois (1998)	<i>observed</i>	that text chat slows conversation. Because
	to improve accuracy. Guichon and Cohen (2014)	<i>observed</i>	more overlapping speech in video conferencing
	Batstone, Duensing and Heins (2007) also	<i>observed</i>	longer silences in language learner–tutor
Native ELT Article Corpus	blossom example evokes the metonymic clusters	<i>observed</i>	by Biernacka (2013) in her study
	number of pronunciation corrections was also	<i>observed</i>	According to Seedhouse (op.cit.: 143–9),
	phenomena such as compound tools are	<i>observed</i>	(Russon, 2004). The formal properties of
	hesitation, a process akin to that	<i>observed</i>	by Liebscher and Dailey-O’Cain (2005: 239) in
	of these accounts. Sacks (1992) also	<i>observed</i>	that stories get told and retold
	more recently Birjandi and Ahangari (2008)	<i>observed</i>	improvements in complexity and fluency, but

5. Conclusion and Discussion

The present study aimed to find out the most preferred reporting verbs by native and non-native ELT researchers and the functional and positional differences among those verbs. In addition to these, it also aimed to see if some reporting verbs were overused by the non-native ELT researchers. After detecting ten overused verbs, the first three overused verbs were also analysed to see if there were any syntactic patterning differences between native and non-native scholar articles in terms of reporting verb use.

The results revealed that out of the ten most preferred verbs, six of them were popular both in the non-native ELT researchers' corpus and reference corpus. It showed that the most frequently employed verbs by Turkish ELT researchers were not so different from the English ELT researchers, and more than half of them were the same. However, the frequency of those verbs showed that Turkish ELT researchers used more reporting verbs than non-native scholars. Although the total numbers of reporting verbs were not compared in the two corpora, the high frequency of the most preferred verbs in non-native corpus can imply that non-native researchers used more reporting verbs than the native ones. This contrasts with Jafarigohar and Mohammadkhani's study (2015), in which they found that the number of reporting verbs and their frequency of occurrence were equal in native and non-native writers' corpora. They concluded that it was because of using a nearly equal sized reference and sub-corpus, but that was not the case in the present study, which is also based on approximately equal sized corpora. It also contrasts with the result of Loi's (2012) study in which she found that native writers used citation five times more than Chinese writers. The reason behind this finding, according to the author, is the linguistic background of the writers. For Turkish writers in this study, linguistic background did not have a negative effect. They used reporting verbs more frequently than native writers.

In terms of the functional categorization of the most preferred ten reporting verbs in the two corpora, it was found that in neither of the corpora, the verbs with the function of addition, advice, believing, disagreement and questioning, emphasis and explanation were used. As mentioned before, there were six reporting verbs which took place in the lists of the top ten reporting verbs of both native and non-native ELT researchers. Among these six verbs, two of them have the function of presentation; two of them have evaluation and examination functions, and two of them have conclusion and suggestion functions. When the other four mostly used verbs in the native corpus were evaluated, it was found that two of them have the function of presentation, one of them has discussion function and the other one has argument and persuasion functions. The other four verbs in the native scholars' corpus have the functions of description, evaluation and examination and two of them have the function of presentation. Although all of the reporting verbs were not analysed in terms of their functions, the most frequently used ten reporting verbs give a picture about the variety of the functions used in the research articles. As a result, it can be stated that native and non-native ELT researchers did not show any differences in terms of the variety of the functions of the reporting verbs they used. In contrast to the present study, Zhang (2008) compared Chinese and English corpora and found that in English corpus there were more verbs with three different functions, especially critical function, than in Chinese corpus.

The positional analyses of the most frequently used reporting verbs in both corpora also shows that both native and non-native ELT researchers used verbs only in neutral position, except for one verb with a stronger position in the native corpus. It shows that both native and non-native scholars avoid using reporting verbs in stronger and weaker positions. Zhang

(2008) also found the similar results that for evaluative potential of reporting verbs, negative and counter-factive reporting verbs were used least in both Chinese and English corpora.

In addition to the most preferred reporting verbs, this study also investigated the overused reporting verbs by non-native ELT researchers and the first three overused reporting verbs were analyzed in terms of syntactic patterning. The Keyness analysis results showed that all of the ten overused reporting verbs, except for *investigate*, were used in past tense. As indicated by Weissberg and Buker (1990), for referring to the results of individual studies similar to the study conducted, past tense was used. As nearly all of the overused verbs were in past tense, it can be inferred that non-native ELT researchers mostly refer to previous single studies similar to their own studies, instead of referring to general statements.

After finding the top ten overused reporting verbs in the study, the first three of them were analysed in terms of syntactic patterning. For the first overused verb, *revealed*, it was found that more than half of the use of it was followed by a complementizer in non-native corpus. The second popular pattern with *revealed* use was its use followed by a noun phrase and least popular one was its use in a passive voice.

When percentages are taken into consideration, one of the most striking findings about the use of *revealed* is that non-native ELT researchers used the verb with a complementizer two times more than the native ELT researchers. In addition, native ELT researchers used the verb in passive voice over five times than Turkish ELT researchers. Thus, the results showed that some patterns are more popular among non-native ELT researchers and they usually tend to use them.

The analyses of the second overused reporting verb *indicated* also showed a similar tendency. As in the studies conducted by Charles (2006) and Yeganeh and Boghayeri (2015), non-native ELT scholars used it followed by a complementizer more than the other patterns. The second popular pattern for this verb was the use of it in a passive sentence. Native ELT researchers also showed a similar tendency. The uses of it in a complementizer and in a passive sentence were also the two mostly used patterns for them. However, a close analysis to the frequencies of these patterns showed that native ELT researchers used the verb in passive voice two times more frequently than Turkish scholars. Neither non-native nor native researchers preferred the intransitive form of the verb. However, the frequency of the verb in its intransitive form in native corpus was observed to be higher than non-native corpus.

For the third most overused reporting verb, *observed*, it is remarkable to find that the mostly preferred pattern was using it in a passive voice both by native and non-native ELT researchers. While the secondly preferred one for non-native ELT researchers was use of it followed a complementizer, for native scholars it was the use of its past participle as an adjective. It is also important to mention that there was an outstanding difference between the two corpora in the use of the verb in its intransitive form. Non-native ELT researchers avoided using this form while native scholars used this pattern nearly five times more than them.

The analyses of all of these three overused reporting verbs also show that Turkish ELT researchers favour the use of reporting verbs followed by a clause or in passive voice more than the other syntactic patterns that can be used with the verb. This does not mean that they do not use the other syntactic patterns with those verbs, but these patterns are more favourable

for them. It can be a result of recalling those patterns more easily than other patterns because more input of them than the other patterns.

The analysis of the results indicates some implications for the design of academic writing courses. As it is important to refer to previous studies in academic writing, reporting verbs should be an important part of an academic writing course. Instead of just handing out the list of reporting verbs, instructors should spare time and make learners aware of the importance of the use of reporting verbs. Learners should realize that those verbs have different patterns, functions and strength in order to express themselves more explicitly and effectively. For making learners aware of the use of reporting verbs, it can be an effective way to refer to corpora of native speakers of English. Once learners realize how to make use of a corpus, they tend to use it in their own studies as well.

6. Limitations

Although this study gives an analysis of reporting practices of the native and non-native ELT researchers, it has some limitations because of the scope of the study. Firstly, a larger corpus size could give a better picture of the reporting practices. However, in this study the articles for both of the corpora were taken from the international peer-reviewed journals, to see if there were and differences between the native and non-native researchers under the same conditions. Inclusion of the non-native scholars' articles from journals that are not peer-reviewed or that are published nationally could change the results. Secondly, the reference and the non-native corpus sizes were approximately equal. A larger size of reference corpus could be better for comparison of the native and non-native researchers' preference and use of reporting verbs. Although a large sized corpus like British Academic Written English (BAWE) could have been used, a reference corpus was compiled specifically for this study as BAWE included essays and it would not be effective for focusing on reporting verbs. Thirdly, this study only investigated the reporting verb practices of ELT researchers. Turkish scholars from other sciences were not included in the study. Fourthly, only three of the overused reporting verbs were analysed in terms of the syntactic patterning, the other seven overused verbs were not analysed because of the scope of the study. If all ten verbs had been analysed, more common and different syntactic patterns would have been found. Also, the analyses were not deep linguistic analyses because the study focused on different issues related to reporting. Deeper analyses may provide more information on different syntactic patterns of reporting verbs used in both corpora.

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