

A Corpus Based Study of Distribution of Preposition in Pakistani and British Englishes

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Abstract

The present study, in the context of World Englishes, explores the distribution of preposition across two varieties of English i.e. Pakistani and British Englishes. It is a corpus based research and studies the frequency of preposition along with its types and (un)shared prepositions in the said varieties. These varieties of English have been studied using Lancaster- Oslo-Bergen (LOB), Freiburg LOB (FLOB) and Pakistani Written English corpus (PWE) respectively. CLAWS Tagger 7 and Antconc.3.3.5 have been used as research tools. The corpus methodology has contributed significantly to gain objective and quantitative findings. In Pakistani English the preposition has been found to be used more frequently than in the British variety. There have been found no significant differences between the numbers of the types of preposition. The findings of the study correspond closely to that of Mindt and Weber's study (1989) conducted on the prepositional distribution in American and British Englishes.

Keywords: Pakistani English; World Englishes; Preposition; Corpus based study.

1. Introduction

Pakistani English (PE) is a 'new variety'. It has developed through institutions and has been widening its tether of use to social, economic, and domestic domains. During the past two decades, PE has drawn the linguists' focus of attention in Pakistan. They are interested to identify its due place among fast emerging varieties of English around the world. At first, it was thought to be exonormative variety, but with the passage of time it has been found breaking the old shackles of British English Rules. It is because the English language has been coexisting with local culture and in the process of getting itself adjusted in new geographical setting, the idiosyncratic conditions of the area have shaped the emerging variety (Schneider, 2003). The variant features of Pakistani English are not merely deviations; there is rather systemized and authenticated use of these features.

The difference between varieties is not due to the presence or absence of particular feature, it is instead a matter of frequency. A certain feature, in a variety may be observed as being regular and in another may be used occasionally. A quantitative study is best able to tackle the issues of difference between varieties. Distinguished features of Pakistani English have been highlighted various researchers (Talaat, 2003; Mahmood, 2009; Baumgardner, 1993; Rahman, 1990 and Mahboob, 2004). The latest studies (Mahmood, 2009; Mahmood, 2009) in the area proved that intuition and observation based works on Pakistani English are not representative and do not highlight the true face of PE. Such studies, however, have triggered the need for corpus based quantitative researches. These corpora based researches are just in claiming to have, the more objective approach.

In Pakistani context, no corpus based study on preposition has been conducted in Pakistani English (PE). As the varieties of English are emerging with full zeal and zest, their variation shows up in different word classes. Thus, in the World Englishes scenario, the present study probes whether or not this closed class grammatical category varies in terms of distribution across the varieties under focus i.e. Pakistani and British Englishes. Being a corpus based research, it dwells on the corpora of Pakistani Written English (PWE) and Lancaster-Oslo-Bergen Corpus (LOB) and The Freiburg-LOB Corpus (FLOB) for the study.

2. Review of Literature

Preposition is one of the most frequently occurring word categories in English language. Mindt and Weber (1989)

were of the view that “every eighth word in contemporary English texts is a preposition”. In 2000 Fang viewed that “in a corpus of one million English words, one in ten words is preposition” (Fang, 2000).

Preposition has been defined by Quirk et al. (1985: p. 657) as an item expressing “a relation between two entities, one being that represented by the prepositional complement, the other by another part of the sentence” (Quirk et al., 1985: 657). Biber et al. (2000) are of the view that “Prepositions are links which introduce prepositional phrases. As the most typical complement in a prepositional phrase is a noun phrase, they can be regarded as a device which connects noun phrases with other structures.” (Biber et al., 2000, p.74).

Prepositions are not present in all languages as some languages have postpositions. The languages with prepositions have limited set of single word prepositions; on the other hand, there are quite a large number of compound prepositions i.e. the structures that play a role of prepositions. These prepositional compounds include noun, verb or adjective in their structure. Verbs that combine with complex prepositions are called “prepositional verbs” (Quirk, Greenbaum, Leech and Svartik, 1985).

Different types Preposition can be classified according to their constituents or their semantic roles. In the first type of classification, the terms ‘simple, phrase, complex and single or multi unit, free or bound prepositions’ are used. As this research will study the construction patterns and the prepositional behaviour with its subject and object, i.e. landmark, I will draw upon the types of preposition according to its structure. Biber et al. (2000) drew a distinction between free and bound prepositions:

Free prepositions have an independent meaning; the choice of preposition is not dependent upon any specific words in the context. In contrast, bound prepositions often have little independent meaning, and the choice of the preposition depends upon some other word (often the preceding verb). The same prepositional form can function as a free or a bound preposition (p.1125).

In 20th Century, Jespersen (1925), Schibsbye (1970) and Quirk et al(1985) studied the use of preposition and highlighted the difference between simple and complex prepositions.

Preposition has been studied in various perspectives. Yadroff and Frank (1999) researched the complex nature of the preposition as word category. Littlefield (2000) handled the same issue and discussed this ‘problematic, contradictory category for theories of syntax’. Freidderici’s study (1982) proved preposition as functional category. However, this is a separate debate whether preposition is a lexical or functional category. In Pakistani English no such study has ever been conducted. Rahman (1990) has studied the use of prepositions in Pakistani English in comparison with that of British English and has found that there are three types of difference between the two. First, PakE may be missing the use of preposition where BrE will be using it, second, the situation may be vice-versa for example, PakE may be using preposition where BrE does not use it and thirdly, both may be taking up a different preposition in the same context. This research on preposition is not deep enough to explore the features of the preposition in Pakistani English nor did it exploit enough data for the study.

Among all, the most relevant to the present research is the one conducted by Mindt and Weber (1989). They studied the distribution of preposition in American and British English. It was a comparative study based on the corpora of two representative corpora i.e. Brown (Brown University Standard Corpus of Present-Day American English) and LOB (Lancaster-Oslo-Bergen Corpus). They found that both corpora bear a close distributional correspondence regarding preposition. They limited themselves to frequency count and presence or absence of particular preposition while comparing their data. They explored that Brown corpus had 12.21% prepositions and LOB 12.34% with the conclusion that “the functional core of the English language which is represented by the prepositions seems to be largely identical irrespective of other differences between British and American English” (Mindt and Weber, 1989, p.230).

3. Methodology

This is a corpus based study and is quantitative in nature. It aims to explore the distribution of prepositions in PWE and LOB and FLOB. For the purpose, corpora of almost equal length from two different varieties of English have been exploited. For Pakistani English ‘Pakistani Written English (PWE) which is 2.1 million in size and for the British variety LOB and FLOB (Lancaster-Oslo Bergen and Freiberg LOB) (2 million) have been taken.

PWE and LOB and FLOB have been tagged with CLAWS 7 tagger that tagged all preposition as ‘II’ except ‘of’ and ‘with’ which have been tagged as ‘IO’ and ‘IW’ respectively. The tagger tagged all the complex prepositions separately according to their types. For example it added, with two-word prepositions 21, 22, with three-word prepositions 31, 32, 33 and with four-word prepositions 41,42,43,44 have been added to ‘II’ as ‘according_II21 to_II22’, in_II21 terms_II32 of_II33 and in_II41 the_II42 light_II43 of_II44. Antconc. 3.3.5 Software has been utilized for the study of this tagged corpus. All simple and complex prepositions have been separated out. Afterwards, it examines and compares the frequencies of preposition in both corpora then the types of

preposition have been focused. The preposition-types in both corpora have been sorted out according to their frequency occurrence. At this stage, it scans out the prepositions that are not common in both i.e. PWE and LOB and FLOB. It also separates out the simple and complex prepositions and studies their distribution across the corpora.

Data Presentation

4.1 Preposition Frequencies

This analysis starts from taking into account text types and tokens in both corpora and then moves on towards the types and tokens tagged as preposition, which include both simple prepositions and complex units.

PWE and LOB and FLOB are the corpora of almost equal size with the difference of only few thousand text tokens as shown below:

Total Words in Both Corpora

4.1.1 Tokens

- | | |
|-----------------|---------|
| 1. LOB and FLOB | 2112491 |
| 2. PWE | 2123732 |

This difference is viewed from another angle also e.g. by comparing the number of word-types in both corpora. This comparison serves as foundation for the comparison of preposition frequencies and types in the next section.

4.1.2 Types

- | | |
|-----------------|-------|
| 1. LOB and FLOB | 57788 |
| 2. PWE | 48020 |

PWE has more tokens and fewer types than that of the LOB and FLOB.

4.2 Total Prepositions in Both Corpora

4.2.1 Tokens

- | | |
|-----------------|--------|
| 1. LOB and FLOB | 237486 |
| 2. PWE | 268541 |

The above mentioned numbers of preposition tokens in both corpora include all the words tagged as preposition by the tagger. However, on manual reading some of the entities were found unclear or not belonging to the category of preposition and thus were excluded. From PWE following words have been excluded from the preposition list: v (29), opp (10), post (7), aged (3), thru (3), x (3) and in LOB and FLOB 'aged (46), v (39), x (31), aboard (17), post (5), Nr (3), bout (1), sensu (1) have not been included in the final list of prepositions. Having excluded these cases (55 tokens from PWE and 142 from LOB and FLOB) the final number of tokens in both corpora is:

- | | |
|---------------|--------|
| LOB and FLOB: | 237344 |
| 2. PWE: | 268486 |

4.2.1.1 Comparison of Preposition and Total Text Tokens

In LOB and FLOB, the total text tokens have been 2112486 and the preposition tokens are 237344. In PWE the total text tokens are 2123732 and the total prepositions are 268486. The ratio of prepositions in PWE is larger than in the LOB and FLOB.

Figure 1 shows the comparison between the two corpora with respect to total text tokens and preposition tokens

The percentage of preposition-tokens in both corpora amounts to be as follows.

PWE: 12.64%

LOB and FLOB: 11.24%

The preposition tokens in PWE are 12.64 %, while in the LOB and FLOB they are 11.23 percent.

Fig. 2 and 3 show Preposition Percentage in PWE and LOB and FLOB.

This shows that In PWE one in 8 words is a preposition while in the LOB and FLOB 1 in 9 words is a preposition. Thus in PWE preposition is used more frequently as compared to LOB and FLOB. As far as frequency of preposition is seen with respect to preposition tokens in both corpora, the comparison highlights the fact that in PWE the use of preposition is more frequent than in the LOB and FLOB.

Fig. 4 show the comparison of preposition tokens in both corpora

The interesting fact, however, is that even if in PWE the preposition is used more frequently the types of preposition are almost same in number in both corpora.

4.2.2 Types of Preposition in Both Corpora

The number of the types of prepositions in both corpora has been as under:

LOB and FLOB: 211

PWE: 211

As mentioned in 2.1, some words tagged as preposition in both corpora were found un-clear and thus were removed from the list. Thus, with the exclusion of total six types (v, opp, post, aged, thru, x) were excluded from PWE and five (aged, v, x, aboard, post Nr., bout, sensu) from LOB and FLOB the following number of types of preposition has been included for consideration

LOB AND FLOB: 205

PWE: 205

2.2.1 Comparison of Preposition and Total Text Types

The following chart shows the status of the types of the preposition in comparison with the number of total text types.

The types of preposition, calculated according to the total text types, has been found to be 42 % in PWE and 35% LOB and FLOB. This percentage is so low as to make a pie chart unable to capture their existence. This comparison highlights the fact that the closed-class words like preposition though are used frequently, but they lack variety as compared to the lexical categories, e.g. noun, adjectives, etc. The functional words thus may not be expected to vary much from one variety of English language to another.

4.2 Simple and Complex Prepositions

This section explores the distribution of the preposition varying according to their construction. Starting from the comparison between the simple one-word prepositions to the multi-word prepositions, it moves on to view the difference in distribution of complex prepositions that are different according to the number of construction units i.e. two word, three word and four word preposition units. The distribution-patterns are compared in both corpora

1 Distribution of Simple and Complex Preposition

This section studies the distribution of simple and complex preposition across both of the corpora.

1.1 Tokens-Wise Distribution/ According to Frequency Occurrence

Following numbers indicate the token-wise distribution of preposition types.

1.1.1 PWE

In PWE corpus total number of simple and complex prepositions are as under:

Simple 259129

Complex 9367

Figure 5 shows that simple preposition is used quite frequently in PWE and the use of complex preposition is much less as compared to simple one word prepositions. This chart shows complex prepositions on the whole and does not at this level deal the different multi word constructions separately. All complex prepositions amount to be 3.48 % and simple prepositions are 96.51% of total preposition tokens in PWE.

1.1.2 LOB and FLOB

The total number of simple and complex prepositions in the LOB and FLOB has been given below.

Simple: 230487

Complex: 6856

Complex prepositions in the LOB and FLOB are 2.88 %, while 97.11% is the use of simple prepositions. See fig. 6.

In both corpora the use of simple preposition is much more frequent than the multi-unit prepositions. Thus, it shows the similarity in the use of preposition according to frequency in both corpora.

Type-Wise Distribution of simple and complex Preposition in Both Corpora

The types of prepositions have been much less in number than the tokens. Following are the findings related to the distribution of preposition according to 'types'.

2.1 PWE

The number of simple and complex preposition in PWE according to their types is as under:

Types of Simple Prepositions	97
Types of Complex prepositions	108

According to the calculation made with respect to the use of the types of simple versus complex prepositions a quite opposite result sprang up showing that 47.3% simple while 52.68 percent complex preposition are used. In other words, the types of preposition in both categories are almost similar to the difference of only 11 types of prepositions.

See fig.7 in this respect.

2.2 LOB and FLOB

Types of simple Prepositions:	99
Types of complex prepositions:	106

In LOB and FLOB the same behaviour of preposition frequencies has been observed as in these corpora simple prepositions are less in number according to the type and the complex units outnumber them by 7. Types of Simple prepositions amount to be 48.29%, while complex prepositions are 51.70%. (See fig. 8)

This is to be noted here that in both corpora simple prepositions took more space on the graph when seen, according to the occurrence and the results reverse when they are seen with respect to the types of prepositions. According to the 'type' complex units surpass the simple ones in number. Thus the complex prepositions seem to accept new members and is more open class as compared to the simple-one-word constructions. This is the reason prepositions are considered to be the hybrid category, on one hand it is grouped together with functional categories of the words while on other, it is seen among the content words and this attitude is seen in both Pakistani and British varieties of English through PWE and LOB and FLOB.

4.3 Distribution of Complex Prepositions according to the Number of Construction Units

This section strands out the multi-unit prepositions apart to view which construction is more frequently used and whether it maintains its positions both in token and type wise distribution. It further compares the results of both corpora and highlights whether this aspect of preposition is different or similar.

3.1 Token-Wise Distribution

The token-wise distribution of complex preposition has been studied according to the number of construction units a complex preposition has. Following are the findings regarding this feature of preposition use in both corpora.

3.1.1 PWE

Total number of complex preposition tokens in PWE is 9367, of which 6205 are two word constructions, 2936 three word constructions and 226 are four word constructions, which amount to be 66.24%,33.34% and 2.41 percent respectively.

Fig. 9 presents the distribution of multi-unit preposition in PWE

3.1.2 LOB and FLOB

6856 is the total number of complex preposition tokens in the LOB and FLOB of which 4801 are two word constructions, 1931 are three word and 124 are four word constructions. Two word prepositions are more frequent i.e. (70.02%)as were in PWE and the four word constructions are lowest in number i.e. 1.80% , while three word constructions are 2nd in number amounting to be 28.23% thus corresponding to the finding in PWE.

Figure10 shows the distribution of multi-unit prepositions in the LOB and FLOB

4 Type-Wise distributions of complex prepositions

Exploration into Type-wise distribution of preposition unveils the real use of prepositions in the text and brushes aside the likely misconception that the preposition that is used more frequently might have been diverse in type also.

4.1 PWE

Total types of multi-unit prepositions in PWE have been 108 of which 58 are three word constructions, 46 two words and only 4 four word constructions which are 53.7%, 42.59% and 3.7% respectively. This is to be considered that in token-wise distribution two word constructions were used the most, while according to 'type' three word constructions are more than the other two. Four-word constructions maintained the same status.

Figure 11 shows the type wise distribution of complex preposition in PWE

4.2 LOB and FLOB

Out of total 106 multi-unit prepositions types in LOB and FLOB 54 are three-word constructions, 48 two-word and only 4 are four-word constructions which occupy 50.94%, 45% and 3.77 space in the above graph respectively. Here also three word constructions outnumber the two word prepositions with respect to 'type' as has been observed in PWE.

Figure 12 presents the type-wise distribution of complex preposition in the LOB and FLOB.

In both corpora, the frequency behaviour of the prepositions has been found to be similar and when the explorations into type-wise behaviour is found different from that of token-wise behaviour of prepositions, the change is observed in both corpora and in the same direction.

It has been established previously that there is no considerable difference between PWE and LOB and FLOB when seen the types of prepositions, but up till now the numbers have been given more considerations and the individual entities have been ignored in both corpora.

4.5 (Un) Shared Prepositions

The frequency of prepositions in PWE and LOB and FLOB with respect to tokens and types has been observed very similar. Out of 205 total preposition types only 10 are different in both corpora of which 6 have been existing in PWE but absent in the LOB and FLOB and 4 present in the LOB and FLOB were not found in PWE.

Table.1 shows these findings.

Figure 13 highlights the close correspondence between both corpora with respect to prepositions.

While viewing this sharing from the angle of the prepositions-tokens, 44 un-shared tokens are made up of 2 one-word, 4 two-word 4 three-word and 2 four-word unshared types .

Table 2, 3, 4, and 5 show these uncommon entities.

4. Findings

English lexicon has two major groups, i.e. Lexical and Functional categories. The lexical categories are more prone to variation across the varieties than functional ones and the variation in functional categories is always very slow and sometimes almost invisible (Mindt and Weber, 1989). Preposition has been termed as a hybrid category because most of the prepositions are fixed and do not change but some (as complex prepositions) keep on accepting additions. The present research has encompassed all types of prepositions to capture the flux of variation across Pakistani and British Englishes through PWE and LOB and FLOB corpora.

In Pakistani English prepositions have been 12.64% ,while in the LOB and FLOB they are 11.24%. Thus, in PWE one in 8 words is a preposition while in the LOB and FLOB one in 9 words is a preposition. This difference suggests that there may be some types of prepositions that may be present in PWE but may not be existent in the LOB and FLOB. It has been interesting to find that even if in PWE the preposition is used more frequently the types of prepositions are almost the same in number in both corpora. On studying closely, the fact sprang up that the types of prepositions are exactly similar in both corpora but the story does not end here, this seemingly 100% correspondence between the two varieties is not the whole truth. Though the number of preposition-types is same, i.e 205 in each corpus, but the entities are not exactly the same as there are un-shared prepositions in both corpora.

The distribution of preposition types, i.e. simple and complex prepositions again showed almost an unbelievable similarity between the two corpora. According to the token-wise study, 97% of the total use of the preposition was covered by the simple preposition and the complex prepositions have been used 3% in each corpus. This distribution has been further studied according to the type of prepositions. In Pakistani English 108 were the types of complex prepositions and 97 have been the complex prepositions. While LOB and FLOB has been found to be having 99 and 106 types of simple and complex prepositions respectively. The distribution of these prepositions thus has been found almost same in both corpora.

5.1 Distribution of Multi-Unit Prepositions

This section dealt with the frequency and types of prepositions. The multi-Unit prepositions have been of three types, i.e. two-word, three-word and four-word prepositions. As far as their frequency has been concerned in both corpora the most used preposition has been two-word preposition which in PWE has been used 66% and in

LOB and FLOB 70% of the total use of complex Units. Other two types have also close correspondence with respect to their use in both corpora as three-word prepositions claim 31% and 28% and four-word prepositions 3% and 2% of use in PWE and LOB and FLOB respectively. These findings have been according to their frequency occurrence. These figures change in the same pattern in both corpora when seen, according to the type-wise distribution of Multi-Unit Prepositions. The most used preposition i.e. two-word constructions were surpassed by three-word constructions in a number of types. Total 108 types of multi-Unit prepositions, there have been 58 and 54 three-word, 46 and 48 two-word and 4 and 4 types of four word prepositions in PWE and LOB and FLOB respectively.

The string of this cent per cent correspondence has been shaken when the study moved towards depth and scanned out the prepositions which have been different in both corpora. There were 5% of prepositions which have not been shared in both corpora. There have been 6 types of prepositions that have not been found in the LOB and FLOB and 4 were in the latter but missing in the former. Of which all simple prepositions in PWE have been present in the LOB and FLOB but two simple prepositions 'nigh' and 'Outwith' present in the LOB and FLOB were not found in PWE. Among two-word constructions, one 'off of' present in PWE was not in the LOB and FLOB and three in the LOB and FLOB 'a la', 'excepting for', 'on board' were not shared by PWE. Of three-word prepositions 'in co-operation with', 'in light of', 'in quest of' and 'with relation to' are the prepositions present in PWE but absent in the LOB and FLOB. As far as four-word prepositions have been concerned, there has been only one in PWE 'out of line with' and one 'out of touch with' in the LOB and FLOB which have not been common in both.

5. Conclusion

Distribution of prepositions in Pakistani and British Englishes is different on the grounds that PE uses preposition much more frequently than BrE. Moreover, there are prepositions that have been found in the one but were absent in the other. Though the unshared prepositions are not many in number but they are there. All this corresponds to the notion that Pakistani English is developing its own flavour with the passage of time. It can be said so because normally the functional categories across the varieties do not differ much (Mindt and Weber, 1989), but here, it is in the distribution of functional category that we have traced some peculiarities of PE. The dissimilarity in the frequency of the use of preposition calls for exploration of this topic from semantic angle. This study generates a question, if there is no significant difference regarding the distribution of preposition in both corpora, there is a possibility that these prepositions may be used differently in these two varieties. This curiosity springs up because Pakistani English writers use preposition much more frequently than the British English writers, corresponding to the assumption that there are places where BrE dispenses with Preposition while PE uses it. So, for the future researchers, there is vast scope of study on this topic and corpus based studies can best bring forth valuable findings.

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Tables:

Table.1 Total Un-Shared Prepositions

Corpus	Types	tokens
PWE	6	29
LOB and FLOB	4	15
Total	10	44

Table 2. Un-Shared Simple Prepositions: 2

PWE	Frequency	LOB and FLOB	Frequency
-	-	Nigh	1
-	-	Outwith	1

Table 3. Un-Shared Two Word Prepositions: 4

PWE	Frequency	LOB and FLOB	Frequency
Off of	4	A la	4
		Excepting for	1
		On board	4

Table 4. Un-Shared Three Word Prepositions: 4

PWE	Frequency	LOB and FLOB	Frequency
In co-operation with	4	-	-
In light of	17	-	-
In quest of	2	-	-
With relation to	1	-	-

Table 5. Un-Shared Four Word Prepositions: 2

PWE	Frequency	LOB and FLOB	Frequency
Out of line with	1	Out of touch with	4

Figures:

Fig. 1 Preposition Tokens in both Corpora

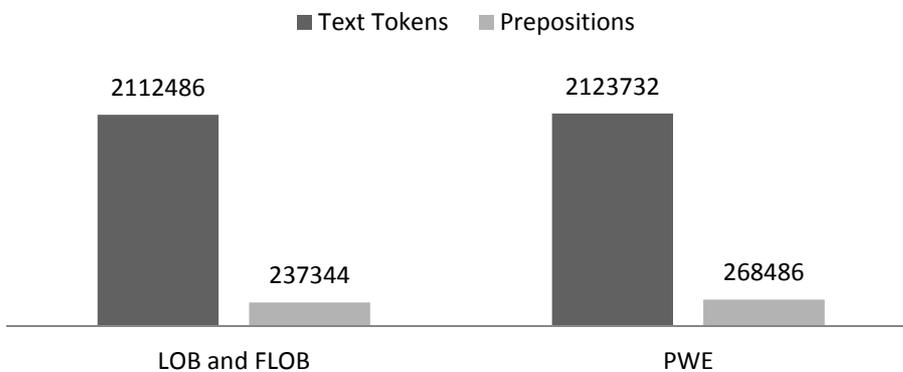


Fig.2 Preposition Percentage in PWE

■ Prepositions ■ Other Words

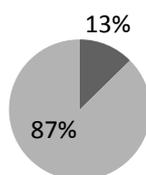


Fig. 3 Preposition Percentage in LOB and FLOB

■ Prepositions ■ Other words

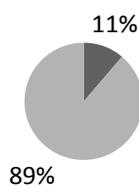


Fig. 4 Percentage of preposition Frequencies in Both Corpora

■ Lob and FLOb ■ PWE

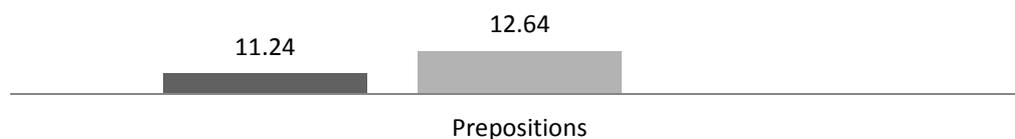


Fig. 5 Preposition Distribution in PWE

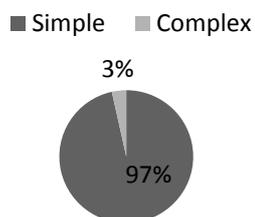


Fig. 6 Preposition Distribution in LOB and FLOB

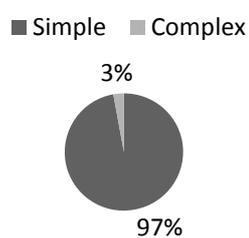


Fig. 7 Type-Wise Preposition Distribution in PWE

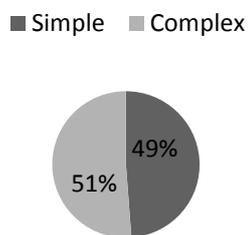


Fig. 8 Type-wise Distribution of preposition in LOB and FLOB

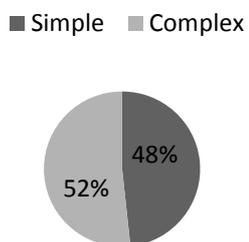


Fig. 9 Distribution of Multi-Unit Prepositons in PWE

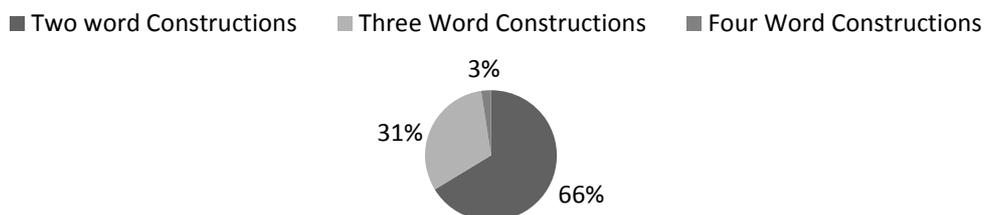


Fig. 10 Distribution of Multi-Unit Prepositons in LOB and FLOB

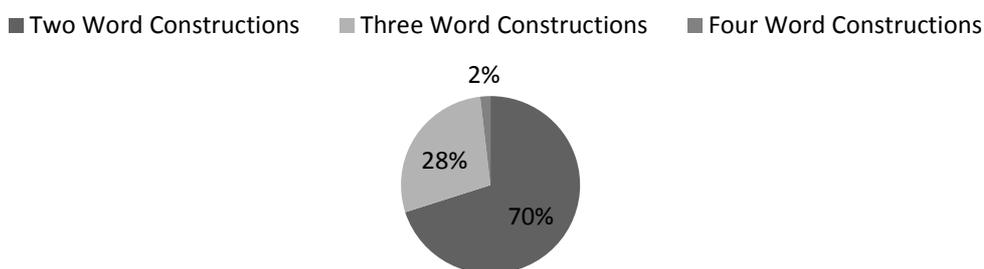


Fig. 11 Type -Wise Complex Constructions in PWE

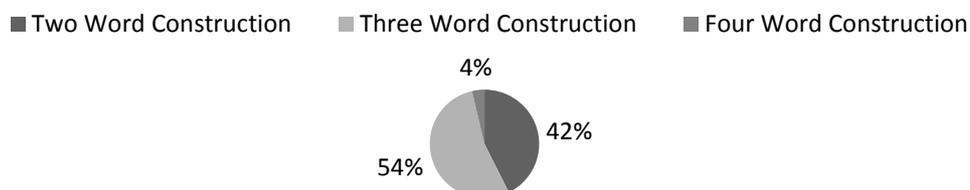


Fig. 12 Type-Wise Complex Constructions in LOB and FLOB

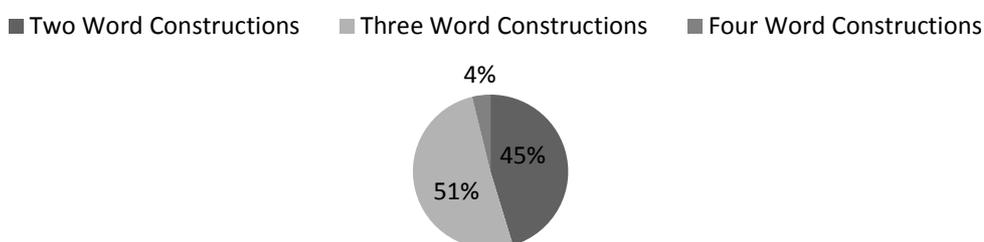


Fig. 13 Shared and Un-shared Preposition types in Both Corpora

■ shared prepositions ■ unshared

