

## **A Corpus- based Study of English Catenative Verbs among Native Speakers of English**

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### **Abstract:**

The present study aims to examine the use of thirty catenative verbs as manifested in two corpora, namely, BNC and COCA in both the written and spoken sections which reflect the actual use of such constructions by native speakers of British and American English. Catenative verbs are categorized into three groups: group one that can be followed by either an infinitive or a gerund complement; group two is followed by an infinitive complement and group three is followed by a gerund complement. Native speakers face some difficulty in using group two and three verbs since they mix between the use of infinitives and gerunds. Results showed that the correct use of the catenative verbs of group two and three considerably outnumbered the incorrect use; thus results showed that some group two verbs were followed by gerund complements and some group three verbs were followed by infinitive complements.

**Keywords:** Corpus, Catenative verbs, BNC, COCA.

دراسة الافعال المتبوعة بمركب فعلي متبوع بأن المصدرية أو دونها لدى الناطقين بالإنجليزية  
وغير الناطقين بها باستخدام الذخائر اللغوية

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**ملخص:**

تهدف الدراسة الحالية إلى دراسة استخدام الافعال المتبوعة بمركب فعلي كما هو موضح في قواعد البيانات الالكترونية : BNC و COCA في القسمي الشفهي و المكتوب التي تعكس الاستخدام الفعلي لمثل هذه الصيغ من قبل الناطقين باللغة الإنجليزية و لتحقيق اهداف الدراسة قام الباحثان باختيار 30 فعلا موزعين بالتساوي على المجموعات الثلاثة وتم تصنيف الأفعال المتبوعة بمركب فعلي إلى ثلاث مجموعات: المجموعة الأولى التي يمكن أن يتبعها إما صيغة المصدر أو صيغة الفعل؛ و الثانية يتبعها صيغة المصدر و الثالثة يجب أن يتبعها صيغة الفعل. يواجه الناطقين بالإنجليزية بعض الصعوبة في استخدام أفعال المجموعة الثانية والثالثة حيث لم يستطيعوا التمييز بين استخدام الصيغة الصحيحة للفعل. وظهرت النتائج ان عدد التكرارات الصحيحة اعلى بكثير من التكرارات الخاطئة. وشارت النتائج بان بعض افعال المجموعة الثانية والثالثة تُبعت بالأفعال ذات صيغة الفعل الخاطئة.

الكلمات المفتاحية: الذخيرة اللغوية BNC و COCA، الافعال المركبة.

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## **1. Introduction**

English has become one of today's necessities in the world. The rapid change of technology in all aspects of life urged people to learn or study English in order to cope with the information technology revolution. Learners of English attempt to master the structure of their sentences during the learning process. To achieve their goal, native speakers of English should be aware of the different types of verb complements and use them correctly.

Sinclair (1996) explained how corpus- based research generally focused on using specific computer programs which enable the researcher to analyze the massive data fast and effectively and to come up with results depending on the cumulative effect of authentic, naturally occurring language and on the interpretation of frequency. The major functions that were used in corpus analysis were frequencies, word lists, concordances and cluster analysis.

Corpus linguistics has developed rapidly due to the vast advancement of computers in the 1990s. Significant studies dealt with how a corpus - based methodology would help the researcher to discover the noteworthy grammatical variation and usage in content have been discussed by Aston (1997), Hyland (2008), Conrad & Biber (2009), Baker (2010) and Biber (2010).

Johansson (2007) explained that the use of electronic corpora is an awesome invention where linguists use them with various analysis tools in order to achieve their goal, which is to examine language on a larger scale and observe new patterns which is difficult to detect manually. He pointed out the immense facilities the electronic search and analysis tools can provide. Linguists do not have to study sentences in isolation anymore but can study various examples in their context.

### **1.1 Corpora and Corpora**

Bennett defines corpus as "a principled collection of authentic texts stored electronically that can be used to discover information about language that may have not been noticed through intuition alone." (2010, p. 9) Evans defines it as " a principled collection of naturally occurring texts which are stored on a computer to permit investigation using special software" (2018,p. 9)

According to Evans (2018), there are different types of corpora: general or generalized corpora. An example of a general corpus is the British National Corpus; Specialized corpora which contain texts from a

particular genre or register or a specific time or context. Comparable corpora are constructed along similar parameters but each containing a different language or a different variety of the same language. Historical (or diachronic) corpora) which are used to study how language changes over time. One example of this type is the Helsinki Diachronic Corpus of English Texts (containing 1.5 million words written between 700 and 1700), and finally monitor corpora. The best example of a monitor corpora is the Bank of English, held at the University of Birmingham.

In this research two corpora were used: the British National Corpus (BNC), and the Corpus of Contemporary American English (COCA). The BNC is a 100 million word collection of samples of written and spoken language from a wide range of sources, designed to represent a wide cross-section of British English from the later part of the 20th century. It includes extracts from regional and national newspapers, specialist periodicals and journals, academic books and popular fiction, among many other kinds of text. The (COCA) consists of formal and informal conversations recorded by volunteers in different contexts). Unlike the BNC, COCA, is composed of more than 560 million words and covers five genres: spoken, fiction, popular magazines, newspapers, and academic journals. The corpus is free to search through its web interface, with a limit on the number of queries per day.

## **1.2 Verb complements in English:**

This research focuses primarily on the use of the infinitive and the -ing verb complements which follow catenative verbs. It is known that verbs in English are followed by infinitive complements or -ing complements and others are followed by either one.

In her book 'English Grammar', Chalker (1984) stated that ordinary verbs not auxiliaries or modals can be followed by other ordinary verbs which are called catenatives. She also identified four main types of verb complement of non-finite form for the second verb; bare infinitive, to-infinitive, -ing or -en that depend on the meaning of the verb (Quirk, Greenbaum, Leech, and Svartvik (1972), Palmer (1974), Rizo (1990) and Huddleston & Pullum (2002).

Freed (1979) studied a number of temporal aspectual verb complements using the analytic techniques. The results show that the semantic effect differentiated each verb structure as well as that the events which are portrayed to have numerous dissimilar temporal segments. To be specific, she stated that the verb complement was named according to the temporal

segments. To illustrate this notion, she argued that the verb *begin* denote the 'initial' temporal part of the action while the verb *start* the 'process'. In this sense, causativity is related only to the verb *start*, and the verb *begin* does not have this causality (Freed, 1979: 80). (cf. Borsley (1984) and Quirk, Greenbaum, Leech, Starvik, (1985) and Andersson (1985)

Numerous studies were conducted on the variety of verb complementation. One of these is Mair (2002) who examined three issues of grammatical variation in modern standard English: first instance is the use of *bare* and to- infinitive with the verb 'help'; the second instance is the optionality of the use of the preposition 'from' before -ing complements after 'prevent'; and the choice between -ing and infinitival complements after the verb 'begin' and 'start'. The analysis is based on data obtained from similar corpora of British and American Standard English. The results indicated a great discrepancy between British and American usage in the complementation of verbs. Thus, it could be concluded that there is not only one Standard English.

Another study conducted by Mair (1998) examined the significant patterns of verb complementation of similar text *corpora of different time* that have changed in recent English. The American spoken corpora of different periods revealed that the infinitive is the standard form in newspapers. After examining two American spoken corpora different periods the data revealed that the infinitive is the standard form in newspapers. Another observation was that the gerund complements for verbs such as *begin* has recent been increasing whereas the American written material does not share this trend. Even near synonym verbs take different verb as the verb *begin* which takes an infinitive whereas the verb *start* takes a gerund complement. Besides, the verb *need* with the infinitive verb complement has increased lately instead of *must* or *have to* as it is more polite. The use of gerund complement was very rare during the nineteenth century but tended to increase in the Early Modern English. Mair (1998) confirmed that the infinitive complement is the common choice in both British and American. However, American English seems to have a higher percentage of gerund complements where this percentage has lately increased.

Johansson (1979) conducted an experiment to study the differences between the British and American English grammar in various aspects. His findings asserted that there were several differences in using the verb complement in both varieties of English. For example, British English

prefers using the gerund verb complement for some verbs such as *like*, *need* and *stop* whereas American English prefers the infinitive verb complement. In other cases, the meaning played a role in choosing the suitable verb complement such as the verb *like doing* which implies a pleasurable activity in the British English, while *like to do* which implies a habitual choice, as in *I like climbing mountains* and *I like to put the milk in first when I pour tea* (Swan, 1995:285). In addition, he explained that in common English, when a verb is complemented by a subjectless infinitive, the infinitive is usually preceded by *to* as it is a British characteristic. In addition, the verb *leave* is commonly used in the present subjunctive option in American English and used mainly in passive constructions in the British English. However, the British prefer the indicative option of the verb *leave* which became another British feature (Algeo, 2006).

Verspoor (1996), from a cognitive perspective, examined the verbal complement where she mainly concentrated on the -ing form. She emphasized the speaker's (or the main clause subject) perception of the event who determines the type of complement. Thus, she proposed the idea that the -ing form meaning was to signify an event that occurred at a point of time where the speaker only viewed a part of it. Verspoor clarified example (1) below as follows:

### **1. I remember taking out the garbage.**

Thus, the 'ing' form implies that the action of remembering is in the immediate present while the action of taking out the garbage may be viewed as a complete action that has already been performed. This has been discussed in many linguistic works by Wood (1957), Freed (1979) and Duffley (2000).

Bourke (2010) noticed that choosing the correct verb complement may impede the learning process for learners. He believed that the majority of learners seem to apply the 'economy principle'; they tend to use concise forms of the full infinitive or gerund verb complement. For example, learners would say \*He suggested us to leave. He also emphasized the link between the semantic feature of the verbs because verbal complementation is meaning-driven. He elaborated that the semantic properties of verbs would guide the learner to predict the type of complementation that can be chosen. The emphasis on the connection of semantic features to the verb complements have been discussed by Dirven (1989), Hamawand (2002), Reid (2004), De Smet and Cuyckens (2005) and Conti (2011).

Regarding the meaning of the to-infinitive complement, Hamawand acknowledged the semantic role played by 'to'. He stated that the use of 'to' with the infinitive in complement clauses is motivated by its lexical meaning as a preposition, where it denotes the notion of a path towards a goal (2002: 95). Duffley (2006a) proposed that the gerund verb complement gave a holistic effect of the verb as it implied incompleteness of the action. Hence, the gerund shows the relationship between the actions expressed by the *-ing* and the main verb is merely a reasonable implication based on the latter's lexical meaning, for example, when the verb *remember* is used in a sentence, it implies that there was an action that had happened before the real act of remembering. Finally, it expresses a non-temporal event.

With reference to the infinitive verb complement, Duffley believed that the verb acts as the end-point of the movement signified by to (2006a: 26). As the infinitive is not restricted to any temporal period, this enables it to correspond to abstract things and makes it match with any adverbial time.

O'Keeffe and McCarthy maintained that "corpus linguistics leads to insights beyond the realms of lexis or grammar by applying its techniques to other questions, some more easily answered by computational analysis than others." (2010:p. 7) They believed that using corpus linguistics research tools can really help in investigating different areas such as media studies or second language acquisition.

This research addresses one of the most confusing areas in learning English which is the use of catenative verbs. It is based on two native corpora namely, the British National Corpus (henceforth BNC) and Corpus of Contemporary American (henceforth COCA). Therefore, it examines the catenative verbs used in the English language and the most frequent patterns on the basis of authentic, naturally occurring language taken from both corpora. For this purpose, only a specific number of catenative verbs were selected and then investigated thoroughly in this study

## **2. Statement of the Problem**

The current research attempts to examine the use of catenative verbs as manifested in the BNC and COCA which reflect their actual use of such constructions by native speakers of English. Group one catenative verbs is not problematic because it can be followed by either an infinitive or a gerund. Conversely, group two and group three verbs may constitute a problem for language users because while group two should be followed by an infinitive, group three should be followed by a gerund.

Catenative verbs are considered a challenging area for some native speakers of English as they get confused between the use of infinitives and gerunds in different contexts in everyday use. Accordingly, the analysis of these corpora will shed some light on the native speakers errors while using catenative verbs in English.

### **2.1. Questions of the Study:**

1. How are catenative verbs used in spoken and written English of the BNC and COCA corpora?
2. What are the differences in the use of catenative verbs in the BNC and COCA?

### **2.2. Significance of the study:**

The significance of the current study lies in the fact that it contributes to how catenative verbs complements are chosen and used in everyday situations. In addition, this corpus-based research will take into account the syntax and semantics of the verbs under investigation and show how they interact. Using a corpus to examine features of a language provides the possibility of uncovering patterns of language use within a large number of authentic, naturally occurring texts and to compare and contrast the findings. Besides, corpus-based studies are not only associated with quantitative methods, but also qualitative perspective that could confirm previous findings and provide a broad view of language. Finally, this study may also show how native speakers of English violate rules of linking catenatives to different complements.

### **2.3. Objective of the Study**

The main objective of the present paper is to examine the frequencies and patterns of thirty catenative verbs of three groups among native speakers of English in the BNC and COCA corpora. Besides, it attempts to shed light on the reasons why native English speakers opt for the choice of certain catenative verb complement types in both spoken and written English as well as to examine the deviations from the correct usage of patterns or complements following group two and group three verbs.

### **3. Methodology**

In order to accomplish the purpose of the present study, the researcher examined thirty catenative verbs in two different corpora, namely, BNC which represents the British English and the COCA which represents American English.



The researchers chose three groups each of which consisting of ten catenative verbs which are thought to be of high frequency. Following are the verb groups which will be investigated in both corpora:

Group one: catenative verbs that take both a gerund or infinitive complements, namely, love, stop, continue, intend, mean, try, remember, learn, like, begin.

Group two: catenative verbs that take only an infinitive verb complement i.e. arrange, attempt, bother, care, choose, come, go, leave, need and offer.

Group three: catenative verbs that take only a gerund complement i.e. complete, dislike, enjoy, escape, recall, recommend, deny, finish, delay and consider.

For the purpose of collecting data, scores of standard queries were used to search the use of catenative verbs in both the BNC and the COCA. Various online services offer the possibility to search and explore both corpora. The BNC can be accessed via BNCWeb at Lancaster University and BYU-BNC (Brigham Young University). The ten verbs in each group were individually searched in the written and spoken section of the BNC and COCA via multiple standard queries. Frequencies and per million (PM) ratio were used for each verb separately in order to identify the complement types for all of the three group verbs in the two corpora.

With regard to normalizing noun or verb counts, some researchers compare word or verb frequency in one corpus with its equivalent in another regardless of the size of the corpus under investigation. This, however, is unacceptable because raw frequencies should always be compared to of the size of the corpus and should thus be normalized. So if the frequency of occurrence of a certain verb complement, *choose(s)*, for instance, is 288 in the BNC and in the COCA, then the per million (PM) ratio for this verb is higher in the BNC than in the COCA because the BNC consists of 100 million words whereas the COCA consists of 560 million words. Fortunately, the PM ratio is automatically calculated by the software programs or interfaces of the two corpora.

#### **4. Findings of the Study**

This section presents the frequencies and per million (PM) ratio of the three group catenative verbs used in the written and spoken sections of the BNC and COCA.

##### **4.1. BNC corpus**

Group one verbs can take both infinitive and gerund complements.

**Table 1:Group one verbs' frequency in the written and spoken section of the BNC**

Written Section of the BNC						Spoken Section of the BNC					
Verbs followed by an infinitive			Verbs followed by a gerund			Verbs followed by an infinitive			Verbs followed by a gerund		
Verb	Fr.	PM	Verb	Fr.	PM	Verb	Fr.	PM	Verb	Fr.	PM
continue(s)	6427	74.47	like(s)	1910	22.13	like(s)	8166	84.62	like(s)	506	50.6
try(ies)	4313	49.98	stop(s)	1898	21.99	try(ies)	673	67.3	stop(s)	445	44.5
begin(s)	3306	38.31	mean(s)	1422	16.48	continue(s)	299	29.9	remember(s)	274	27.4
like(s)	2629	30.46	remember(s)	814	9.43	mean(s)	205	20.5	mean(s)	186	18.6
intend(s)	2288	26.51	try(ies)	786	9.11	begin(s)	169	16.9	try(ies)	72	7.2
learn(s)	1409	16.33	continue(s)	598	6.93	love(s)	147	14.7	love(s)	51	5.1
mean(s)	1197	13.87	begin(s)	434	5.03	intend(s)	145	14.5	continue(s)	23	2.3
love(s)	776	8.99	love(s)	283	3.28	learn(s)	98	9.8	intend(s)	12	1.2
remember(s)	404	4.68	intend(s)	176	2.04	remember(s)	60	6	begin(s)	6	0.6
stop(s)	197	2.28	learn(s)	10	0.12	stop(s)	9	0.9	learn(s)	1	0.1
Mean	22946	26.59	Mean	8331	9.65	Mean	9971	26.51	Mean	1576	15.76

**Fr: Frequency****PM: Per Million**

It is noticed that there is a tendency for using the infinitive complement more than the gerund complement in both the written and spoken sections of the BNC. For instance the frequency of the verb *begin(s)* with the infinitive complement is 6427 with a PM ratio of 74.47 whereas the frequency of the gerund complement with the same verb is 434 and a PM ratio of 5.03 in the written section. Again the frequency of the verb *like(s)* with the infinitive complement is 8166 with a PM ratio of 84.62, whereas the frequency of the gerund complement with the same verb is 506 and a PM ratio of 5.03 in the spoken section. As stated above this holds true for all the verbs in Group one.

Table 2 below presents Group two verbs that take an infinitive complement. The frequencies indicate that the usage of an infinitive complement is higher than the gerund in general.

**Table 2:Group two verbs' frequency in the written and spoken section of the BNC**

Written Section of the BNC						Spoken Section of the BNC					
Verbs followed by an infinitive			Verbs followed by a gerund			Verbs followed by an infinitive			Verbs followed by a gerund		
Verb	Fr.	PM	Verb	Fr.	PM	Verb	Fr.	PM	Verb	Fr.	PM
need(s)	21359	247.5	need(s)	800	9.27	need(s)	3701	370.1	go(es)	226	22.6
attempt(s)	5390	62.46	go(es)	736	8.53	come(s)	420	42	need(s)	182	18.2
come(s)	4028	46.67	come(s)	471	5.46	go(es)	275	27.5	come(s)	101	10.1
choose(s)	1279	14.82	leave(s)	111	1.29	attempt(s)	145	14.5	bother(s)	87	8.7
care(s)	839	9.72	bother(s)	99	1.15	choose(s)	78	7.8	care(s)	9	0.9
go(es)	829	9.61	care(s)	91	1.05	bother(s)	65	6.5	leave(s)	9	0.9
leave(s)	656	7.6	offer(s)	82	0.95	care(s)	40	4	choose(s)	1	0.1
offer(s)	578	6.7	attempt(s)	29	0.34	offer(s)	25	2.5	attempt(s)	0	0
bother(s)	396	4.59	arrange(s)	12	0.14	leave(s)	15	1.5	offer(s)	0	0
arrange(s)	137	1.59	choose(s)	9	0.1	arrange(s)	14	1.4	arrange(s)	0	0
Mean	35491	41.13	Mean	2440	2.83	Mean	4778	47.88	Mean	615	6.15

**Fr: Frequency****PM: Per Million**

Group two verbs usually take the infinitive and not –ing complements. However, some verbs such as *care(s)* and *leave(s)* were incorrectly used with gerund complements, with a frequency of 91 and a PM ratio of 1.05 for the former and a frequency of 111 and a PM ratio of 1.29 for the latter in the written section of the BNC. The rate of the incorrect use of group two verbs was considerably lower in the spoken section as shown in Table 2.

The mean of the correct use of group two is 41.13 PM in the written section of the BNC compared to the incorrect use which is 2.83 PM. Similarly, the mean of the correct use of group two verbs is 47.88 PM, compared to the incorrect use which is 6.15 PM in the spoken section of the BNC. Thus, it can be concluded that the majority of group two verbs are used correctly in both the written and spoken sections of the BNC.

Group three verbs take only the –ing and not the infinitive complements. However, some verbs such as *enjoy(s)* and *complete(s)* were incorrectly used with the infinitive complements, with a frequency of four and a PM ratio of 0.05 for the former and a frequency of six and a PM ratio of 0.07 for the latter in the written section of the BNC. Similarly, the rate of the incorrect use of group three verbs is considerably lower in the spoken section of the BNC as shown in Table 3.

**Table 3: Group three verbs' frequency in the written and spoken section of the BNC**

Written Section of the BNC			Spoken Section of the BNC								
Verbs followed by a gerund			Verbs followed by an infinitive			Verbs followed by a gerund			Verbs followed by an infinitive		
Verb	Fr.	PM	Verb	Fr.	PM	Verb	Fr.	PM	Verb	Fr.	PM
avoid(s)	1600	18.54	consider(s)	199	2.31	enjoy(s)	76	7.6	consider(s)	19	1.9
consider(s)	888	10.29	finish(es)	31	0.36	avoid(s)	49	4.9	avoid(s)	1	0.1
enjoy(s)	734	8.51	escape(s)	19	0.22	consider(s)	38	3.8	escape(s)	1	0.1
risk(s)	166	1.92	recall(s)	7	0.08	finish(es)	33	3.3	risk(s)	0	0.2
recall(s)	146	1.69	complete(s)	6	0.07	risk(s)	15	1.5	enjoy(s)	0	0
finish(es)	100	1.16	enjoy(s)	4	0.05	recall(s)	12	1.2	finish(es)	0	0
recommend(s)	92	1.07	recommend(s)	3	0.03	dislike(s)	3	0.3	recall(s)	0	0
dislike(s)	53	0.61	risk(s)	0	0	recommend(s)	1	0.1	recommend(s)	0	0
escape(s)	37	0.43	avoid(s)	0	0	escape(s)	1	0.1	dislike(s)	0	0
complete(s)	23	0.27	dislike(s)	0	0	complete(s)	0	0	complete(s)	0	0
Mean	3839	4.45	Mean	269	0.31	Mean	228	2.28	Mean	21	0.23

**Fr: Frequency**

**PM: Per Million**

Table 3 shows that mean of the correct use of group three verbs is 4.45 PM in the written section of the BNC, compared to the incorrect use which is 0.31 PM. Similarly, the mean of the correct use of group three verbs is 2.28 PM, compared to the incorrect use which is 0.23 PM in the spoken section of the BNC. Thus, it can be concluded that the majority of group three verbs are used correctly in both the written spoken sections of the BNC.

#### 4.1.2 COCA Corpus:

Group one verbs can take either infinitive or gerund complements. Table 4 shows that there is a tendency for using the infinitive complement more than the –ing complement for all verbs in the written section of COCA except for the two verbs, *stop (s)* and *remember(s)*. The former had a frequency of 15803 and a PM ratio 34.84 with the gerund complement and a frequency of 1813 and a PM ratio of 4.00 with the infinitive complement in the written section of COCA. The verb *remember(s)* had a frequency of 6463 and a PM ratio of 14.25 with the gerund complement and a frequency of 1467 and a PM ratio of 3.28.

**Table 4: Group one verbs' frequency in the written and spoken section of the COCA**

Written Section of the COCA						Spoken Section of the COCA					
Verbs followed by an infinitive			Verbs followed by a gerund			Verbs followed by an infinitive			Verbs followed by a gerund		
Verb	Fr.	PM	Verb	Fr.	PM	Verb	Fr.	PM	Verb	Fr.	PM
try(ies)	159308	351.21	like(s)	24079	53.08	try(ies)	31970	273.95	like(s)	7063	60.52
like(s)	45403	100.09	stop(s)	15803	34.84	like(s)	24825	212.72	stop(s)	4675	40.06
continue(s)	44685	98.51	begin(s)	9245	20.38	continue(s)	14042	120.33	remember(s)	3051	26.14
begin(s)	22694	50.03	mean(s)	7718	17.01	begin(s)	4516	39.55	love(s)	1576	13.50
mean(s)	9718	21.42	remember(s)	6463	14.25	love(s)	4257	36.48	mean(s)	1567	13.43
learn(s)	9150	20.17	continue(s)	5383	11.87	mean(s)	2368	20.29	begin(s)	1276	10.93
love(s)	8146	17.96	try(ies)	4201	9.26	intend(s)	1869	16.02	continue(s)	1215	10.41
intend(s)	5846	12.89	love(s)	3321	7.32	learn(s)	1293	11.08	try(ies)	367	3.14
stop(s)	1813	4.00	learn(s)	133	0.29	remember(s)	188	1.61	learn(s)	26	0.22
remember(s)	1487	3.28	intend(s)	27	0.06	stop(s)	188	1.61	intend(s)	6	0.05
Mean	308250	67.99	Mean	76373	16.84	Mean	9062	73.36	Mean	20822	17.84

**Fr: Frequency**

**PM: Per Million**

Again the tendency for using the infinitive complement more than the gerund complement holds in the spoken section of COCA except for the verbs *stop(s)* and *remember(s)*. The verb *stop(s)* had a frequency of 4675 and a PM ratio of 40.06 with the gerund complement and a frequency of 188 and a PM ratio of 1.61 with the infinitive complement. The verb *remember(s)* had a frequency of 3051 and a PM ratio of 26.14 with the gerund complement and a frequency of 188 and a PM ratio of 1.61 with the infinitive complement.

As stated earlier, group two verbs take the infinitive only and not –ing complements. However, one verb in the written section of the COCA violated this rule, namely *leave(s)* which was used more with the –ing than the infinitive complement with a frequency of 530 and a PM ratio of 1.17, compared to a frequency of 410 and a PM ratio of 0.90 with the infinitive complement. Also the verbs *come(s)* and *go(es)* were incorrectly used with gerund complements in the written section of COCA, the former had a frequency of 3704 and a PM ratio of 8.17 and the latter had a frequency of 3565 and a PM ratio of 7.86.

**Table 5: Group two verbs' frequency in the written section of the COCA**

Written Section of the COCA						Spoken Section of the COCA					
Verbs followed by an infinitive			Verbs followed by a gerund			Verbs followed by an infinitive			Verbs followed by a gerund		
Verb	Fr.	PM	Verb	Fr.	PM	Verb	Fr.	PM	Verb	Fr.	PM
need(s)	119360	263.14	come(s)	3704	8.17	need(s)	47632	408.16	go(es)	3704	8.81
attempt(s)	21605	47.63	go(es)	3565	7.86	come(s)	3988	34.17	come(s)	3565	5.87
come(s)	21563	47.54	need(s)	1643	3.62	go(es)	3549	30.41	need(s)	1643	1.65
care(s)	6847	15.09	bother(s)	1057	2.33	care(s)	3124	26.77	bother(s)	1057	0.72
choose(s)	6830	15.06	leave(s)	530	1.17	choose(s)	1646	14.1	offer(s)	70	0.21
go(es)	5267	11.61	offer(s)	529	1.17	offer(s)	451	3.86	choose(s)	67	0.09
offer(s)	2541	5.6	attempt(s)	23	0.05	bother(s)	195	1.67	arrange(s)	39	0.33
bother(s)	1945	4.29	choose(s)	67	0.15	attempt(s)	169	1.45	leave(s)	35	0.30
leave(s)	410	0.90	arrange(s)	39	0.09	leave(s)	104	0.89	attempt(s)	3	0.03
arrange(s)	321	0.71	care(s)	0	0	arrange(s)	47	0.4	care(s)	1	0.01
Mean	186689	41.16	Mean	11158	2.46	Mean	60905	52.19	Mean	10184	1.8

**Fr: Frequency**

**PM: Per Million**

The mean of the correct use of group two verbs is 41.16 PM in the written section of the COCA, compared to the incorrect use which is 2.46 PM as shown in Table 5. Similarly, the mean of the correct use of group two verbs is 52.19 PM in the spoken section of the COCA compared to the incorrect use which is 1.8 PM. Thus, it can be concluded that the majority of group two verbs are used correctly in both the written spoken sections of the COCA.

Group three verbs take only the -ing but not the infinitive complement. In line with this, the frequencies of verbs used with the -ing complement are considerably higher than those of the infinitive complement. The verbs *consider(s)* and *risk(s)* were incorrectly used with the infinitive complements, with a frequency of 622 and a PM ratio of 1.37 for the former and a frequency of 477 and a PM ratio of 1.05 for the latter in the written section of the COCA.

The frequencies in Table 6 of group three verbs indicate the appropriate use in COCA as the incorrect frequencies are very low in the written and spoken sections:

**Table 6: Group three verbs' frequency in the written and spoken section of the COCA**

Written Section of the COCA						Spoken Section of the COCA					
Verbs followed by a gerund			Verbs followed by an infinitive			Verbs followed by a gerund			Verbs followed by an infinitive		
Verb	Fr.	PM	Verb	Fr.	PM	Verb	Fr.	PM	Verb	Fr.	PM
avoid(s)	8859	19.53	consider(s)	622	1.37	avoid(s)	955	8.18	consider(s)	346	2.96
consider(s)	6421	14.16	risk(s)	477	1.05	consider(s)	755	6.47	risk(s)	152	1.3
enjoy(s)	4017	8.86	finish(s)	68	0.15	enjoy(s)	755	6.47	recall(s)	17	0.15
risk(s)	3306	7.29	escape(s)	53	0.12	risk(s)	417	3.57	recommend(s)	13	0.11
recommend(s)	2510	5.53	recall(s)	29	0.06	recall(s)	239	2.05	enjoy(s)	9	0.08
recall(s)	1556	3.43	complete(s)	26	0.06	finish(s)	175	1.5	finish(s)	7	0.06
finish(s)	1480	3.26	recommend(s)	21	0.05	recommend(s)	146	1.25	avoid(s)	3	0.03
dislike(s)	140	0.31	enjoy(s)	13	0.03	escape(s)	30	0.26	escape(s)	5	0.04
complete(s)	73	0.16	avoid(s)	10	0.02	complete(s)	11	0.09	dislike(s)	2	0.02
escape(s)	63	0.14	dislike(s)	3	0.01	dislike(s)	7	0.06	complete(s)	1	0.01
Mean	2843	6.27	Mean	1322	0.29	Mean	3490	2.99	Mean	555	0.48

**Fr: Frequency**

**PM: Per Million**

The mean of the correct use of Group 3 verbs is 6.27 PM in the written section of COCA, compared to the incorrect use which is 0.29 PM. Similarly, the mean of the correct use of group three verbs in the spoken section of COCA is 2.99 PM, compared to the incorrect use which is 0.48 PM. Thus, it can be concluded that the majority of group three verbs are used correctly in both the written spoken sections of COCA.

## 5. Discussion

The analysis of the data showed that there are more similarities than differences between the British and American English as to the use of catenative verbs in group two and three.

### 5.1.1 BNC corpus

Although the infinitive and gerund complements could be used in group one, the BNC seems to use the infinitive form more often in the written section. The frequency of the verb *like(s)* is almost the highest in both verb complement, yet the infinitive complement occurrence was higher than the gerund. The verb *continue(s)* has gained the highest frequency in the infinitive complement. These results are in line with Johansson (1979) who concluded that there is a tendency for the British to use the infinitive complement more than the gerund for the verb *like(s)*. This is perhaps due to the fact that it is a common verb generally used to express feelings, needs or preference of things. In our daily life we communicate various messages through the use of the verb *like(s)* for example, *I like to study in the morning.*

Generally speaking, the British are fast in their articulation rate of speech and activities so the use of the infinitive gives the meaning of being urgent or acting quickly (Shanmukha, 2017). Thus, they might apply the concept of brevity in their communication.

On the other hand, the verb *stop(s)* and *remember(s)* have higher frequency with the gerund complement where the findings are compatible with those of Johansson (1979) who claims that the British prefer the use of gerund complement for the verb *stop(s)* rather than the use of infinitive complement.

People tend to use the verb *stop(s)* with the gerund complement to prevent an annoying situation or action for example, *Stop smoking in my face!*. The results are in line with Johansson's (1979) findings who maintains that the British prefer using the gerund complement with the verb *like(s)*. In addition, the verbs *stop(s)*, *mean(s)* and *remember(s)* were used with the gerund complement. These results do not correspond to Mair (1998) who

indicated that the infinitive complement in general is a more common choice in both British and American English. It could be argued that these three verbs reflect the semantic feature of the gerund which Duffley (2006a) portrayed as a non-temporal event expression. Thus, people use gerund verb complements when the time is not important or they do not know the specific time.

There is an obvious tendency for people to use the verb *like(s)* in various ways. A speaker may use the verb *like(s)* for making a request as in *I'd like to order a burger please.* or to express likes or dislikes as in *I like to have some chocolate.* Therefore, the frequency of this verb is the highest in group one in both corpora. In addition, the verb *stop(s)* is one of the most frequent verbs used in our daily life as in, *Stop shouting!* to express ending an undesirable action. Concerning the verb *learn(s)* English speakers may use other words to denote the same meaning as for example, *I got it* instead of *I have learned it* in daily conversations.

As for the spoken section, similar findings were found in group one where the verb *like(s)*, *try(ies)* and *continue(s)* frequencies were the highest. The verbs *stop(s)* had the second highest frequency with the gerund complement and *remember(s)* the third. The verb *stop(s)* is highly used to prevent an action as explained previously for the written section.

The increasing use of the verb *remember(s)* could be due to our dynamic life style where we have lots of activities to do, as a result we need to remember things on a daily basis. Another explanation for the use of the verb *remember(s)* is basically people's memories of the good and bad ones. This result supports Bourke's (2010) explanation of the verbs *remember(s)* and *continue(s)* can express not only intention for doing something but also the degree of success achieved by the doer of the action.

Moving to group two verbs which take infinitive complements it was found that the correct use is higher than the incorrect use in written materials where the verb *need(s)* reached the highest in the infinitive in comparison to the gerund complement. The result for the verb *need(s)* is inconsistent with that of Johansson (1979) who claimed that British speakers tend to prefer using the gerund complement for the verb *like(s)* while the Americans favor the infinitive with such verb. One of the prevalent verbs in people's daily life is the verb *need(s)*. It might imply a request for help as in *I need you to help me in my English exam* or it might express the necessity to do something essential as in *He needs to do something about his grades.*

The verb *attempt(s)* was the second highest within the infinitive complement . It seems that the British usually use this verb to indicate their intention or planning for this action. Although the infinitive complement frequency is higher than the gerund complement, its result from a semantic point of view does not support the idea that Duffley (2006a) proposed concerning the infinitive complement. The infinitive usually denotes the end-point of the movement while the verb *attempt(s)* denotes an action that still needs to be done.

Concerning the very low frequencies of the verb *arrange(s)* in both written and spoken sections, it may indicate two things; first, the meaning of *arrange(s)* can be expressed by using the *going to* or *present continuous* structure for future planning or it can be used synonymously with the verb 'order' which is used more frequently among people in various domains. In both cases the verb *arrange(s)* is generally used in more formal settings as one arranges a meeting or a specific event.

In group two the written section of the BNC showed parallel results to the spoken section. The verbs *need(s)*, *come(s)* and *go(es)* had the lion's share in frequencies, hence, the results match those of Johansson (1979) who stated that British prefer using the gerund verb complement with the verbs *like(s)*, *need(s)* and *stop(s)* while the Americans use the infinitive complement. These results are also consistent with Swan (1995) who argued that the British prefer the use of the gerund when expressing an enjoyable actions. These verbs express the idea of an action that is not necessary bound to a specific time.

Regarding the frequencies of group three the results pointed out that the majority of British people employ correct gerund complement. These results do agree with Dirven (1989) who emphasized that verbs such as *avoid(s)* and *escape(s)* are associated with the gerund verb complement in order to express near reality actions.

People tend to use group three catenative verbs correctly with the exception of the verb *consider(s)* which had a high frequency with the in the infinitive and gerund complements in the written and spoken section. This indicates that the British use this verb for different purposes. Duffley (1992) explained that the verbs such as *risk(s)* should take a gerund because it implies the meaning of an action with no limited or specific time. Thus, the frequencies of the verb *risk(s)* in the infinitive is zero. Therefore, the verb *risk(s)* is used correctly.



Unexpectedly, the verb *complete(s)* has no occurrence in both verb complements in the spoken section. It seems that the British don't use it at all. Instead, they use the verbs *finish(es)* or *end(s)* to designate nearly the same meaning.

### 5.1.2. COCA Corpus:

Although the infinitive and gerund complements can be used with group one catenative verbs, the former was used more frequently than the gerund verb complement in the COCA.

The verb *try(ies)* and *like(s)* appeared at the forefront of the infinitive complement. The verb *try(ies)* is used frequently because people usually face many kinds of obstacles and they want to overcome them. They also convey their attempt of doing something or a certain action by using the verb *try(ies)*. Besides, the verb *like(s)* is used to express people's likes and dislikes a lot during routine exchanges. What is worth noticing is that the verb *stop(s)* has a very high frequency in the gerund complement and a very low one in the infinitive complement. Thus, Americans prefer the gerund complement to be used with the verb *stop(s)*. The result for the verb *stop(s)* was contradictory to what Johansson (1979) mentioned where the Americans prefer the use of infinitive complement for some verbs such as *like(s)*, *need(s)* and *stop(s)*. The gerund conveys factive or actual situations, unlike the infinitives that refer to the possibility or unrealized situations (Johansson, 1987). Americans might express their preference of things, their preventing something or someone from doing some action.

After examining the spoken section of group one verbs as shown by COCA, the tendency was for the verb *like(s)* and *stop(s)* to be used more with the gerund complement than the infinitive complement. As for the verb *remember(s)* it was used more with the gerund complement and this is in line with the findings of Mair (1998), who stated that in Early Modern English the gerund complement was used more often for verbs such as *remember(s)* and this phenomenon was demonstrated clearly in American English.

Group two verbs were correctly used with the infinitive complement and in fewer instances were used with the gerund complement as shown by their relatively low frequency. This is not in line with Bourke (2010) classification of verbs where he suggested that verbs such as *attempted*, *forgot*, *remembered* and *continued* are *Intention-type* verbs. These verbs express intention and the degree of success achieved by the agent or doer of the action. Hence, a lot of these verbs require a gerund complement.

Using the verb *need(s)* in American English is noteworthy as it attained the highest frequency. This result is completely consistent with Mair (1998) who noted that recently in modern English the verb *need(s)* has taken the infinitive complement more than in the previous decades. Once more the verb *arrange(s)* scored the least frequencies in the infinitive and gerund complements as in the British English. It seems to be a rarely used verb in the BNC.

In general, Group Three verbs seem to be used correctly in the written and spoken section of the COCA. The verb *avoid(s)* has the highest frequency, followed by *enjoy(s)*, *recommend(s)* and *dislike(s)* with the gerund complement. This finding supports Quirk et al. (1985) who have distinguished types of complementation and how they are related. They claimed naturally negative verbs, such as *escape* or *avoid* denote the meaning of 'performance' which is connected with gerund complements.

## 6. Summary and Conclusion

The current descriptive and empirical research was conducted within the framework of corpus linguistics. The corpus approach is composed of four major characteristics: (i) it is empirical, (ii) it utilizes a large and principled collection of natural texts, (iii) it makes extensive use of technology and (iv) it depends on both quantitative and qualitative techniques. (Biber, Conrad & Reppen 1998, p. 4). Whereas quantitative analysis addresses the basic statistical measures such as *frequency counts*, *ratios*, and a simple tallying of the number of verb types complements in both corpora, qualitative analysis enables researchers to interpret and explain results or findings with reference to the occurrence of frequencies and percentages.

An analysis of the overall results of the complement types of verbs showed that native speakers commit errors in the written and spoken sections of the BNC and COCA, the former representing British English and the latter American English. For instance, the verbs *leave(s)* and *bother(s)* were incorrectly used with the gerund complement in the written section of the BNC, the former with a frequency of 111 and the latter with a frequency of 99. As for the verb *need(s)*, it was incorrectly used with the gerund complement in the spoken section of BNC with a frequency of 182. Similarly, the verb *consider(s)* and *risk(s)* were incorrectly used with the infinitive complement, the former with a frequency of 622 and the latter 477 in the written section of COCA. Again, in the spoken section of COCA, the verb *consider(s)* and *risk(s)* were incorrectly used with the infinitive, the

former with a frequency of 346 and the latter 152PM. If these catenative verbs errors and similar ones were evident and occurred in native English, spoken and written, then it would not be surprising that they occur in non-native English oral and written communications. If native speakers of English commit errors in the use of catenative verbs, then this may entail two implications, the first in the context of foreign language learning where teachers should be more tolerant and receptive of EFL learners' errors, and the second, in the context of technology. Language educators and teachers at all levels have been using a plethora of tools in their teaching during the last decades. However, it is about time that teachers made use of new language pedagogical tool which is corpus- based. In many studies, corpus-based teaching showed great results and students' language improvements could be noticed. Therefore, adapting new technology such as learner's corpus in teaching would help both teachers and language learners to make the learning process more interesting, beneficial and rewarding.

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