A corpus-based analysis of English synonyms: *Show* and *display*

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Abstract

Synonyms can impede language learners from acquiring proficiency. Hemchua and Schmitt (2006) stated that when inappropriate word choices are made, it can lead to a misunderstanding. This study aimed to investigate two synonyms, *show* and *display*, which are ranked among the top 3,000 most frequent English words (Longman, 2014). The data for this analysis were collected from the Corpus of Contemporary American English (COCA) and two dictionaries. The frequency data from the corpus revealed the insight unavailable in dictionaries; *show* is used significantly more frequently than *display* due to its wider range of meanings. Examining the frequency distribution across genres indicated each synonym's formality level. Some contexts allow the interchangeable usage of *show* and *display*, but not all. To illustrate, *show* is more natural when the context is about ARRIVING AT THE PLACE, whereas *display* is more natural when the context is about a COMPUTER or SCREEN. This corpus-based study indicates beneficial insights that can be applied in the EFL classroom and demonstrates the advantages of the corpus as a tool for studying and teaching English. This study also provides authentic examples for answering questions effectively and not relying only on intuition or assumptions.

Keywords: COCA, collocation, corpus-based study, genres, synonyms

Introduction

Second-language learners must enrich their vocabulary (Barcroft, 2016; Saville-Troike, 2012; Szudarski, 2018; Wilkins, 1972). Students may encounter words with similar meanings within the vast vocabulary. Despite their similar meanings, synonyms cannot always be used interchangeably. Synonyms may make it more challenging for language learners to achieve proficiency (Yeh et al., 2007). It may be difficult for ESL and EFL learners to select the appropriate terminology. Hemchua and Schmitt (2006) note that poor word choices (i.e., lexical errors) may lead to a misinterpretation of the message or make it harder to figure out what the text means. Lexical synonymy is crucial to learning a second language, but learners often get confused about how to use synonyms (Norris, 2016). Several students try substituting a term with its synonym. However, not all synonyms are interchangeable in all contexts (Crawford & Csomay, 2016), so substituting the synonym can result in an ungrammaticality or unnatural usage of the English language (Thornbury, 2002).

Synonyms are one issue that language learners face. Based on the researcher's teaching experience, students frequently question the differences between the terms *show* and *display*. Both *show* and *display* are ranked among the top 3000 in the *Longman Communication 9000*, identifying the most frequent English words (Longman Dictionary of Contemporary English 6th edition, 2014, p. 2126). An example of a question during the class; a student asked if he had an appointment with someone and the person did not come, why should he say, "She didn't *show*"? Why couldn't he say, "She didn't *display*," when "*show*" and "*display*" have the same meaning? As a teacher, the researcher needs to find sufficient reasons and authentic examples to answer for effective teaching that does not rely only on intuition or assumptions. The question of these two synonyms is of great concern to many learners as many questions were also posted online (e.g., englishforums.com, thefreedictionary.com, and stackexchange.com) regarding the usage of the two synonyms.

One thing that might be helpful is consulting dictionaries. However, due to the limited space, the information may not be sufficient to provide students with adequate clarity. Gouws (2012, p.2) mentioned that the circular definition is "a type that is not applauded elsewhere but utilised in dictionaries due to its space-saving value." To demonstrate, one of the meanings of *show*, according to Cambridge Dictionary (2013, p. 1433), is "to express ideas or feelings"; by the same token, the definition of *display* is "to show a feeling." Hence, the information is insufficient to give the student adequate clarity due to the circular definition.

In addition to student issues, the researcher also encountered the use of *show* and *display* interchangeably in academic papers, despite the absence of "*show*" in the Academic Word List. The researcher, therefore, desires to know the actual usage of native speakers, how the two synonyms are used in different contexts, and to see how often they occur in each genre. Many scholars (e.g., Aroonmanakun, 2015; Bergdahl, 2009; Chung, 2011) suggested that the data contained in language corpora can offer additional insights that are not available in learner dictionaries. As a result, this study aims to investigate two synonymous verbs: *show* and *display,* to find the difference in the frequency of these two terms in the eight genres (i.e., spoken, fiction, popular magazines, newspapers, academic texts, TV and Movie subtitles, blogs, and

webpages) of COCA, and to identify the two synonyms' collocates and meanings. This research proposes two related research questions as follows:

1. What are the frequency differences between *show* and *display* and their patterns of distribution across the genres in COCA?

2. What are the similarities and differences between the two synonyms in terms of meanings and collocations?

The data for this synonyms analysis were collected from COCA, Longman Dictionary of Contemporary English 6th edition, and Oxford Advanced Learner's Dictionary 10th edition.

Literature Review

Corpus Linguistics and Word Studies

The usage of corpora is an essential aspect of contemporary linguistic research (Szudarski, 2018). According to Crawford and Csomay (2016, p.20), "One way to understand linguistic analysis and language is through corpus linguistics, which looks at how language is actually used in certain contexts and how it can vary from context to context." Because of the interconnected nature of language, Moon (2010) mentioned that corpora reveal typical contexts in which words are used and how one word's associations with other words contribute to our comprehension of that particular term.

The Definitions of Synonyms

Crystal (2018) mentioned that synonyms are lexemes with the same meaning; however, there may be no lexemes with exactly the same meaning. Synonyms can be divided into two broad categories. First, according to Cruse (2000), absolute synonymy means that two words have the same exact meaning and can be defined as items that are equivalent in all contexts. Second, near-synonym refers to terms that can be used interchangeably where their meanings overlap but cannot be used in place of one another in every context (Jackson & Amvela, 2000). As Murphy (2010) mentioned, context or collocation is needed to determine whether or not they are synonyms.

Collocations

O'Dell and McCarthy (2017, p.6) define collocations as "a collocation is a combination of two or more words which frequently occur together." Someone would likely be understood if they said, "She has got yellow hair," yet this is not a typical English expression. We would say, "She has got blond hair." In other words, yellow and hair do not collocate in common English usage. Yellow collocates well with, for example, flowers and paint. Students with a good understanding of collocations will be able to use their existing vocabulary more accurately and naturally.

Previous Studies

Numerous scholars have conducted corpus-based studies on synonyms. The two most common methods found were studies using the corpora alone and studies using corpora in conjunction with dictionaries. Several past studies demonstrating an intriguing conceptualization of synonyms are presented below.

Chung (2011) examined the synonyms *create* and *produce* utilizing only corpora. The data was gathered from two corpora: the Brown Corpus and the Frown Corpus. According to the findings, the two synonyms share overlapping senses of meaning. Only a corpus can provide distributional information. In addition to studying synonyms using corpora alone, corpora are also used in conjunction with dictionaries. Phoocharoensil (2010) examined the meaning, style (i.e., formality), connotations, collocations, and grammatical patterns of five English verb synonyms: *ask*, *beg*, *plead*, *request* and *appeal*. The findings demonstrated that certain idiomatic expressions were employed differently in certain regions, and each word has a distinct collocation.

The primary type of corpora used in examing synonyms is "general corpora" or "reference corpora" like British National Corpus (BNC) and Corpus of Contemporary American English (COCA). A study conducted by Figes (2013) is an example of using BNC with a dictionary. COCA employed in conjunction with dictionaries to research synonyms can be found in the study of Thamratana (2013) and a study conducted by Jarunwaraphan and Mallikamas (2020).

According to the review of the relevant literature, synonyms cannot be used interchangeably in all contexts. They can be differentiated according to the following criteria: meanings, dialects, degrees of formality, connotations, and collocations. Data for comparing and contrasting synonyms can be taken from dictionaries and corpora. Nonetheless, two research gaps were identified in the previous studies. First, some research address a limited number of criteria. Second, some research just obtained data from corpora only. In order to fill the gaps, the objective of the present study then establishes a set of criteria, including word frequency and distribution patterns across genres, meanings, and collocations, to analyze the synonymous verbs, *show* and *display*. In the following section, the methodology for analyzing the data in this study will be presented.

Methodology

Research Tools

The primary sources of data are the Corpus of Contemporary American English (COCA), along with two dictionaries: Longman Dictionary of Contemporary English 6th edition (2014) and Oxford Advanced Learner's Dictionary 10th edition (2020). Longman Dictionary includes over 230,000 words, phrases, and meanings and 165,000 examples that are corpus-based. The dictionary also contains grammar notes to assist learners in avoiding grammatical errors, 65,000 collocations to promote reading and listening comprehension, and thesaurus notes to help learners identify the most appropriate word or phrase among synonyms. Oxford

Dictionary provides over 60,000 words, 79,000 phrases, 89,000 meanings, and 109,000 examples. Example sentences show language in use and the new Oxford 3000™ and Oxford 5000™ word lists graded by CEFR level.

Procedures

The data from the two dictionaries and COCA were analyzed in this study using the following five steps. First, the data on distribution patterns across the eight genres were retrieved using COCA's "frequency" feature. Second, the meanings of each synonym were listed and grouped from the two dictionaries. Third, the collocates of each synonym were retrieved using COCA's "collocates" feature employing an MI score equal to or greater than 3 to approve their statistical significance (Cheng, 2012). Fourth, the meanings of each collocate were explored to group their meanings and semantic preferences to analyze the meanings of "*show"* and "*display"* more precisely. Fifth, a comparison was made to determine the similarities and differences between the target synonyms.

Results

This section presents the findings related to the two synonyms (i.e., *show* and *display*) and is divided into three main sections. The first part demonstrated distribution patterns across the genres. The second part focused on meanings. Finally, the third part highlighted collocations.

Distribution Patterns

Regarding research question 1: *What are the frequency differences between show and display and their patterns of distribution across the genres in COCA?*, the distribution patterns of *show* and *display* when functioning as verbs are presented below.

Table 1 Distribution patterns of *show* and *display* across eight genres in COCA

Genre	Show		Display	
	Frequency	Per million	Frequency	Per million
Blog	28,813	224.03	2,001	15.56
Web	28,870	232.35	2,638	21.23
TV / Movies	38,495	300.57	350	2.73
Spoken	34,456	273.17	338	2.68
Fiction	18,738	158.36	856	7.23
Magazine	24,445	193.87	2,554	20.26
News	24,554	201.69	1,349	11.08
Academic	20,712	172.90	2,764	23.07
Total	219,083	220.62	12,850	12.94

As presented in Table 1, it is noticeable that the total frequency difference between *show* and *display* is up to 17 times; the total frequency of *show* is 219,083, while the frequency of *display* is only 12,850. The word

show is primarily used in informal genres, which are "TV / Movies" (38,495 tokens) and "Spoken" (34,456 tokens). On the other hand, the word *display* is primarily used in formal genres, which are "Academic" (2,764 tokens), and used least in informal genres, which are "TV / Movies" (350 tokens) and "Spoken" (338 tokens).

Meanings

Regarding research question 2: *What are the similarities and differences between the two synonyms in terms of meanings and collocations?* Two procedures were performed to answer this research question. The first procedure was to examine the meanings of the target synonyms (i.e., *show* and *display*). However, Murphy (2010) mentioned that the definition by itself is insufficient, so the second procedure was to examine the meanings of their collocates. Sinclair (2004, p.142) depicts that "semantic preference is the restriction of regular co-occurrence to items which share a semantic feature."

According to the two dictionaries, the meanings of the verbs *show* and *display* can be classified as shown in Table 2 and 3.

Table 2 The meanings of the word *show* from Longman and Oxford Dictionary

No	Meanings from Longman and Oxford Dictionary	
	Meaning	Example sentences
1	Let somebody see	You have to *show* your ticket as you go in.
2	Prove something / make clear / information	Figures *showed* a 9% rise in inflation.
3	Feelings / attitudes / qualities / behavior	She had learned not to *show* her emotions.
4	Explain with actions / teach	*Show* me how the gun works.
5	Guide somebody	The attendant *showed* us to our seats
6	Point at something	Can you *show* me exactly where he fell?
7	Film / television / (to be on) screen	The match was *shown* live.
8	Picture / map, etc.	The map *shows* the main rivers of the region.
9	Be able to be seen (e.g., a mark, dirt, etc.)	Light-coloured clothes tend to *show* the dirt.
10	Increase / decrease	Recent elections have *shown* significant gains.
11	For public to see (e.g., art / pictures)	The sculptures are being *shown* at the Hayward.
12	Animal (in a competition)	Do you plan to *show* your dogs?
13	Arrive	I waited an hour but he didn't *show*.

Table 3 The meanings of the word *display* from Longman and Oxford Dictionary

No	Meanings from Longman and Oxford Dictionary	
	Meaning	Example sentences
1	Feelings / attitudes / qualities / behavior	She *displayed* no emotion on the witness stand.
2	Film / television / (to be on) screen	Giant screens *displayed* images of crowds.
3	For public to see (e.g., art / pictures)	The museum will *display* 135 of his paintings.
4	Animal (to attract a mate)	Multiple males gather to *display* to females.

As presented in Table 2 and 3, it is obvious that the verb *show* has more meanings (i.e., a wider range of meaning) than the verb *display*. The definition of *show* encompasses all of the meanings of *display*, as well

as additional meanings that *display* does not. Interestingly, both synonyms have the same semantic preferences in the "animal" domain, but their sense of meaning is different. Whereas the meaning of the word "*show*" concerning animals is "to put an animal into a competition with other animals," the meaning of the word "*display*" is that "when a male bird or animal displays, it behaves in a particular way as a signal to other birds or animals, especially to attract a female."

The second procedure was to examine the collocates of the synonyms. This study focuses on noun collocates in order to analyze the object of each synonymous verb. The top-thirty nouns that frequently co-occur with verbs *show* and *display* were retrieved from COCA based on frequency in aggregation with an MI score equal to or higher than 3 in order to approve their statistical significance (Cheng, 2012) and are listed below.

Table 4 The semantic preferences of nouns that collocate with *show*

Group	Semantic preferences	Noun collocates of verb *show*
1	Prove something / make clear / information	study, poll, statistics, figure, chart, graph, correlation, slide, autopsy
2	Explain with actions / teach	diagram
3	Picture / map	map, scan
4	Feelings / attitudes / qualities / behavior	sign, respect, mercy, compassion, willingness, appreciation, gratitude, kindness, affection, restraint, remorse, improvement, solidarity, inclination
5	Increase / decrease	decrease
6	Film / television	footage, videotape
7	Arrive	doorstep

Table 5 The semantic preferences of nouns that collocate with *display*

Group	Semantic preferences	Noun collocates of verb *display*
1	Let somebody see	museum, flag, works, gallery, poster, exhibition, shelf
2	Feelings / attitudes / qualities / skill / signs	sign, behavior, collection, attitude, characteristic, emotion, talent, symptom, ignorance
3	Computer / screen	comment, image, screen, map, text, content, monitor, ad, logo, menu, icon
4	Prove something / make clear / information	table, chart, graph

According to Louw (1993 p. 157), semantic prosody is "a consistent aura of meaning with which a form is imbued by its collocates." The data illustrate that *show* and *display* both co-occur with nouns concerning feeling or quality. However, "*show*" conveys the meaning more positively than "*display.*" The verb "*show*" co-occurs with nouns like *respect*, *mercy*, *compassion*, *willingness*, *appreciation*, *gratitude*, *kindness*, and *remorse*, which convey the meaning in a positive way. On the other hand, the verb "*display*" co-occurs with nouns like *symptom* and *ignorance*, which convey the meaning in a negative way. Moreover, "*display*" co-occurs with nouns concerning "COMPUTER or SCREEN," such as *monitor*, *ad*, *menu*, and *icon*, but "*show*" does not co-occur with nouns under this domain. The results presented in this section are discussed in the next section in order to provide an integration of observational data.

Discussion and Conclusion

The present study aimed to investigate the similarities and differences between two synonymous verbs, *show* and *display*, using a corpus-based approach, focusing on their frequencies and distribution patterns across genres, meaning, and noun collocation. The frequency data from the corpus revealed the insight unavailable in dictionaries that "*show*" is used more frequently than "*display*." Examining the frequency distribution across genres indicated the level of formality. The style or formality of the context in which they are used might help distinguish synonyms from one another (Cruse, 2000). "*Show*" is primarily used in informal contexts, while "*display*" is used in formal contexts. The results are consistent with previous research indicating that some synonyms vary in terms of formality and styles of the context; for example, *ask*, *beg*, *plead*, *request*, and *appeal* (Phoocharoensil, 2010), and synonymous nouns *chance* and *opportunities* (Jarunwaraphan & Mallikamas, 2020).

Regarding meaning and collocations, "*show*" and "*display*" are near-synonyms. As asserted by Jackson and Amvela (2000), near-synonym refers to terms that can be used interchangeably where their meanings overlap but cannot be substituted in every context. Murphy (2010) added that the precise context or collocation must be considered because the definition of the word itself is insufficient. To clarify this, "*show*" and "*display*" can be used interchangeably as in (a). However, if the context is about ARRIVING AT THE PLACE, "*show*" is more natural as in (b); if the context is about COMPUTER or SCREEN, "*display*" is more natural as in (c).

(a) She had learned not to *show*/*display* her emotions.

(b) I waited an hour but he didn't *show*/*display*.

(c) Press 'Enter' to *display*/*show* the sorted mailing list.

Pedagogical Implications

Regarding pedagogical implications, the present study demonstrates the importance of teaching vocabulary within its contexts and offering the authentic use of vocabulary through actual examples. The investigation exposed beneficial insights that can be implemented in EFL classrooms. Frequency and distribution patterns across genres revealed that *show* is used significantly more frequently than *display* due to its wider range of meanings. The results of this study indicate that the two verbs, *show* and *display*, are considered "near-synonyms," which is consistent with the findings of Jackson and Amvela (2007), and Murphy (2010), who discovered that near-synonyms might be used differently in terms of collocation and semantic preferences despite having similar meanings. As opposed to only consulting dictionaries, using corpora allow for discovering new insights (Aroonmanakun, 2015; Jarunwaraphan & Mallikamas, 2020; Phoocharoensil, 2010; Thamratana, 2013).

On the whole, this corpus-based study demonstrates the benefits of the corpus as a tool for studying and teaching English. Data from corpora can explain how words are used in different contexts. The corpus

investigation yielded more information about the authentic use of each synonym, which can benefit EFL teachers and students more than simply consulting dictionaries or relying solely on intuition.

Recommendation

The data used in this study were gathered from only one corpus, the Corpus of Contemporary American English (COCA), which represents American English. The British National Corpus (BNC), which is representative of British English, should be used in upcoming research to compare British English and American English.

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