English Native Speakers and Indonesian Speakers' Concept of Verb 'Increase': A Corpus-Based Lexical Semantic Approach

[1] **Christiana Sidupa and** [2] **F.X. Rahyono**

[1]Interior Design Department, Digital Language Learning Center, Faculty of Humanities
Bina Nusantara University, Jakarta, Indonesia

[2]English Literature Study Program, Faculty of Social Sciences and Humanities
Buddhi Dharma University, Tangerang, Indonesia

[1]christiana.sidupa@binus.ac.id, [2]rahyono@ubd.ac.id

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[2]English Literature Study Program, Faculty of Social Sciences and Humanities Buddhi Dharma University, Tangerang, Indonesia

Abstract: In conveying meaning, most Indonesian speakers still struggle in determining collocations properly, particularly for words that have the same denotative meaning in English. This research aims to reveal the English native speakers' and the Indonesian speakers' concept of verb 'increase'. The semantic field in this study is based on syntagmatic relations or what is called collocation. The research method in this research adopts a combination of qualitative and quantitative approaches with descriptive and comparative methods and corpus linguistic methodological approach. The research data comes from digital texts in the field of economics of British students (British Academic Written English/ BAWE) and independent digital texts containing articles from Sinta 2 accredited national journals (Indonesian Economic Written English/ IEWE). The results show that the concept of the verb *increase* used by English native speakers is identical with Indonesian speakers that represents the spatial concept 'up'. Comprehending the concept, therefore, will enable Indonesian speakers to improve their comprehension of English VN collocations, as well as the accuracy of the VN collocations.

Key words: collocation, concept, semantic field, corpus

Abstrak: *Dalam menyampaikan makna, sebagian besar penutur bahasa Indonesia masih kesulitan dalam menentukan kolokasi secara tepat, terutama untuk kata-kata yang memiliki makna denotatif yang sama dalam bahasa Inggris. Penelitian ini bertujuan untuk mengungkap konsep penutur asli bahasa Inggris dan penutur bahasa Indonesia tentang kata kerja 'increase'. Medan makna dalam penelitian ini didasarkan pada hubungan sintagmatik atau yang disebut dengan kolokasi. Metode penelitian dalam penelitian ini menggunakan kombinasi pendekatan kualitatif dan kuantitatif dengan metode deskriptif dan komparatif serta pendekatan metodologis linguistik korpus. Data penelitian berasal dari teks digital bidang ekonomi mahasiswa Inggris (British Academic Written English/BAWE) dan teks digital independen yang berisi artikel dari jurnal nasional terakreditasi Sinta 2 (Indonesian Economic Written English/IEWE). Hasil penelitian menunjukkan bahwa konsep kata kerja increase yang digunakan oleh penutur asli bahasa Inggris identik dengan penutur bahasa Indonesia yang merepresentasikan konsep spasial 'naik'. Oleh karena itu, dengan memahami konsep tersebut, penutur bahasa Indonesia dapat meningkatkan pemahaman mereka terhadap kolokasi VN dalam bahasa Inggris, serta keakuratan kolokasi VN.*

Kata kunci: *kolokasi, konsep, medan makna, korpus*

INTRODUCTION

In the use of collocations in English, based on the researcher's experience as an English lecturer, it is observed that in expressing meaning most Indonesian speakers still have difficulty in using collocations appropriately, especially for words that have the same denotative meaning in English. The examples are:

> 'So this is the ways to *increase* employee *loyalty*, and how to make the employee are comfortable with the company, of course this will be a good impact also for the company, and let me explain and going to the topic', and

> 'Therefore, it needs in-depth research to know the determinants of HDI in Muslim countries and what kind of fit policy to *raise income'*.

From the examples, in producing collocations in sentences, the verbs *increase* and *raise* are often used by Indonesian speakers interchangeably since they are considered to have the same denotative meaning, namely *'meningkatkan'* in Bahasa Indonesia. As a matter of fact, the words are not synonymic as they cannot replace each other in a given sentence context by carrying the same meaning. The interference of collocation usage above affects the conceptualization of English in the cognition of Indonesian speakers so that the meaning relations of the three examples of verbs in collocation usage, in this case verb-noun (VN) collocation, overlap. Thus, the interference indicates the relationship between the cognition of language users, in this case Indonesian speakers, that is shown by the different VN collocations produced. In addition, the paradigmatic meaning relation that is difficult for Indonesian speakers to understand is the relation of near-synonymy in English as a Foreign Language (EFL) that tends to be used interchangeably in producing collocations. Paradigmatic relations refer to the relations of semantic choices that can fill the same syntactic category in a sentence structure. This statement is in accordance with Cruse (2013) who reveals that paradigmatic relations reflect the semantic choices available at a particular structure point in a sentence.

The previous research on semantic field theory adopted the identification of synonyms and antonyms to the conception of *Murshid* from the poems under appraisal (Iqbal, 2022), and conceptual and contextual analysis methods in the English translations of *The Master* and *Margarita* by Mikhail Bulgakov, and by professional translators Michael Glenny, Richard Pevear, and Larissa Volokhonsky (Ptashkin, 2021). The former succeeded in presenting an alternate Sūfī viewpoint to the one that rules daily life by fusing crazy-wisdom into his poetry. The latter reflects the category of deviation in translation that includes the central part and periphery.

Other researchers adopted different methods. Filyasova (2019) seeks to distinguish the semantic field of the term "human capital" from its related lexical units in the field of economics on the basis of their valency and contextual meanings. Similarly, Dullieva's (2017) paper shows how the semantic features of lexemes form a conceptual model that connects all elements in the compared semantic fields on the basis of "abstractness-concreteness", that can give quantitative estimate of differences between semantic fields after conducting a comparison of the different semantic fields related to "cooking verbs" in English and Russian. The article's conclusion states that " the semantic field of cooking verbs in English is more specific compared with that in Russian" (p. 1). The articles also play a key role in expanding the scope of semantic field theory by viewing it as a cross-displinary mechanism that can analyze lexemes from economic and managerial sciences as well as cross-cultural languages.

From the examples, it is obvious that the English VN collocations used by Indonesian speakers are different from those used by English native speakers. It could be caused by the common words they were familiar with in the composition (Sidupa & Rahyono, 2019). Therefore, it is essential to find out what kind of concept Indonesian speakers and English native speakers actually have that is represented by the use of different collocations focusing on verb *increase*, by employing a corpus-based approach. The present study investigates on its semantic fields to find the concept owned by English utilized in the use of English VN collocations. The reason for choosing *increase* in the field of economics is that the verb is very close to the field and contextual. Besides, the selection of the verb for study is based on its meaning relations. The meaning relations of the verb overlap shown by the similarity of their referent meanings and their use that is considered to be widely substitutable for each other, especially by Indonesian speakers.

The main problem addressed in this study is the issue of what concepts do English speakers and Indonesian speakers have that are represented by differences in the collocations of English VNs used for *increase*? The finding is expected to shape the understanding of concepts held by Indonesian speakers and English native speakers shown by the differences in collocations used. In the case of English, English native speakers' concept of surrounding objects plays an important role in the formation of English VN collocations. By understanding the concept, therefore, Indonesian speakers can improve their understanding of English VN collocations, as well as to improve the accuracy of the VN collocations produced.

LITERATURE REVIEW

A.   Semantic Field

Geeraerts uses the term "conceptual field" (Geeraerts, 2010, p.65) for the semantic field. For the notion of semantic field, Geeraerts adopts Trier's (1931, 1934) term "field" that refers to a set of words that have meaning relations and describe each other. Thus, the vocabulary of a language system is semantically related and builds a complete lexical system. Like a mosaic picture, if one word changes its meaning, the whole structure of the mosaic will change. The term and notion of the field was actually borrowed by Trier from Ipsen (1924) as the first person to use the metaphor of the mosaic structure of the semantic field and emphasize the holistic feature of the field. In this case, one important point about the field was emphasized by Ipsen that the meaning of a word does not come from its etymological origin, but from the use of a word in a field at a certain time (Herbermann, 1995, p. 266). Although the term comes from Ipsen, the theoretical basis of the meaning field approach comes from Weisgerber. Weisgerber emphasizes that language influences the community members of a language system through the semantic field. That is, the meaning of a word is present only in the semantic field or in other words, the concept of the world is determined by the semantic field. In its development, Lehrer (1995, p. 36) mentions that the semantic field plays an important role in semantic analysis because most words are ambiguous, it is often easier to find each word's meaning in its own field. For example, the word *orange* can be in both the color field and the fruit field (Lehrer, 1974, p. 10).

Regarding the semantic field, Geeraerts focuses on syntagmatic relations. According to him, the semantic field previously understood to be based only on paradigmatic relations should consider syntagmatic relations as well. Furthermore, Geeraerts explains that there are in fact two ways in which syntagmatic analysis is already relevant for structuralist semantics. First, over time it has become clear that words have specific combinational features to be included in semantic

field analysis. Syntagmatic relations relate to the possibility of a lexical element fitting into larger wholes with other language elements. The syntagmatic relation is also called online co-occurences. Geeraerts' statement refers to the term essential meaning relations introduced by Walter Porzig (1934). Porzig pointed out that besides grammatical characteristics, syntagmatic relations are also closely related to aspects of meaning. At the same time, restriction is also pointed out. The second way is that the important role of syntagmatic relations is more thorough in analyzing the semantic field than just the incorporation of lexical combinations. The environment in which a word appears can be used as a methodological basis to derive its meaning (Geeraerts, 2010, p. 57-59).

Nida (1975) calls the term "semantic domain/class" (page 19) for the semantic field. Nida reveals that the existence of lexical units in the same field indicates that there is a common component that they share, in addition to the distinguishing components that distinguish one meaning from another (p. 74-75). Nida explains that to analyze the referential meaning of a linguistic unit, be it a morpheme, lexeme, or idiom, semantic features are needed that are able to distinguish the meaning between one word and another in the same field (p. 32-39). Words in a certain semantic field are words that have the same semantic components. Nida suggests four semantic fields in all languages, namely entity, event, abstract, and relation. These four categories of semantic fields can also be related to word classes such as entity semantic fields related to nouns, event semantic fields related to verbs, abstract semantic fields related to adjectives. Louw and Nida (1988) elaborated a more detailed classification of semantic fields. This classification is used in this research.

Geeraerts (2010) revealed that a concept is a bona fide member of the semantic field because the semantic field is systematized. When a concept in the conceptual field is not lexicalized, a conceptual gap appears (Geeraerts, 2010, p. 65). Regarding concepts, Cruse (2004, p. 126-127) explains that the function of language is to transfer concepts (as a tool to understand what concepts exist in human cognition). Concepts or meanings are very important to show the efficient function of human cognition. Concept refers to a set of human knowledge that is organized and represents human understanding of events, objects, situations, and any human experience. Talking about concepts, it is necessary to realize two things, namely the structure of the concept itself and the relationship between concepts and linguistic forms. The concepts in human cognition are connected to each other like a network. A word will activate certain concepts in his cognition, so it is said that the word has meaning. Therefore, the meaning of a word is formed from concepts that are believed and live in human cognition, where the concept itself is brought forth from human understanding of the surrounding world.

Geeraerts' statement on conceptual gaps is adopted from Lehrer (1974) and Lyons (1977). Lehrer (1974, p. 74) revealed that a lexical gap occurs when there is no word in a pattern or organization that is usually made in the form of a diagram, such as a chart or matrix. In its development, Lyons expressed something similar to Lehrer regarding lexical overlap. Lyons (1977, p. 301) emphasizes the absence of a word in a semantic field structure as a lexical overlap.

From the description of the semantic field theory above, it can be concluded that the basic principle of the semantic field approach is to understand the meaning of a set of lexical elements based on their semantic relations. Its essence is determined by its relationship with other meanings in a field. Regarding the semantic field, Geeraerts focuses on the semantic field based on syntagmatic relations. In this research, the semantic field used is based on syntagmatic relations. Thus, the semantic field theory is the main theory used in this study to explain the significant colloquialisms in the semantic field of English verb *increase*. Next, using comparative

analysis, the semantic fields constructed by the significant colloquial meanings of English verbs, both those used by English native speakers and Indonesian speakers, are analyzed to find conceptual gaps.

B.   Collocation

Firth (1968, p. 182) defines collocation as words that often occur side by side (actual words in habitual company). Firth's attempt to explain the meaning of a collocated word is unique, as it focuses on the meaning relationship between lexical units from a syntagmatic relation. These co-occurring words collocate because they have a meaning relationship, for example the word "night" collocates with the word "dark" because one of the meaning components of "night" is "dark". Sinclair (1991, p. 170) states collocation as the occurrence of two or more words within a short space of each other in a text. What Sinclair means by short space is that the span between the word under study (node) and the companion words on the right and left (span) is four words on the right and four words on the left.

Finch (2000, p. 152) defines collocation as certain words that have a tendency to occur together. What is meant by "to occur together" is a word that is often paired with other words, such as the word *clear*, usually paired together with the words *sky, road, conscience* so as to form an adjective collocation with the nouns *clear sky, clear road, clear conscience*. Collocative distinctions can separate words that are synonymous or paradigmatically related, such as the words *quiver* and *tremble* are synonyms, but *tremble* is used with *fear* and *quiver* with *excitement, profound* and *deep* can occur with *sympathy*, but *deep* only occurs with *hole*.

Next, Kridalaksana (2002, p. 113) also points out that a word can coexist with another word to form a fixed association is because the words have a meaning relationship. Stubbs (2002, p. 10) argues that there is always a relation between nodes and the words they collocate with (collocates), as well as a relation between the collocated words (relation between collocates). The relation Stubbs refers to is a relation of meaning because the words share some of the same semantic features. Stubbs (p. 29-30) explains that collocates that accompany nodes in the corpus are the center of attention, especially the frequency of their occurrence. This is because corpus linguistics is based on the assumption that a high-frequency occurrence is significant. Therefore, collocation can also be defined in terms of statistical nuances, namely frequent co-occurrence.

Halliday (2004, p. 11) adopts and extends Firth's theory that states that collocation is the tendency of words to occur together, such as fork with knife, lend with money, theater with play. Halliday adds that collocation is a pure lexical relationship because the meanings of one word and another are associated. The frequency of occurrence of collocations in a given context can be measured quantitatively. According to Halliday, collocations limit the co-occurrence of certain words and make the words that will co-occur predictable with a high probability. The semantic field used in this study is based on syntagmatic relations. This syntagmatic relation is also called collocation. Collocation can be seen by frequency-based approach and semantic-based approach. Regarding the collocation category, the collocations studied are collocations at the lexical level, namely verb and noun collocations that aim to explain the formation of the semantic field.

C.   Verbs

Riemer (2010, p. 319) broadly divides aktionsart into two, namely (i) state, and (ii) occurrence. According to Riemer, aktionsart, refers to the inherent temporal classification of an event, regardless of the encoding of the verb aspect. This means that a verb can have different

characteristics when it is in a certain context. A state is static and covers situations that do not change. In contrast, events are dynamic and include something that is happening. A state does not include something that is happening, but only exists or results without any internal sequence of phases. Therefore, state is often associated with the perfective aspect. Events are further divided into three types, namely activity, achievement, and accomplishment. Accomplishment is a punctual event. That is, achievement is contemporaneous, occurring at a single point in time. The verb *achievement* refers to the instantaneous transition between two states. Unlike accomplishment, activity and completion are durative. They both occur over a period of time. Completion is bounded or telic, i.e. it has an inherent endpoint, that cannot continue. Different activities from completion in that they are not bounded or telic, i.e. they do not have an inherent endpoint.

Verbs play an important role in sentence structure because they determine the presence or absence of other functions (object, complement, adverb). Verbs refer to words that indicate action and may only be substitutable in certain contexts (Hatch & Brown, 1995). Cruse (2011, p. 299) uses the term aspectual feature for Aktionsart or situation type. From a semantic point of view, aspect is a property or characteristic of events and states. Cruse describes three basic aspectual features, namely:

1. <u>Change</u>

   Change is defined as the state that can be interpreted as changing or remaining constant. A verb is said to be homogeneous if it does not change. If something happens or is happening, the state is classified as changing.

2. <u>Boundedness</u>

   Some events can be understood because they have boundaries. They can appear at the beginning or at the end of an event, but it is the ones that appear at the end that are considered the most important. Events with boundaries at the natural end are called telic, and those whose boundaries do not appear at the end are called atelic.

3. <u>Duration</u>

   Verbs can be understood because they have the inherent feature of time. There are verbs that take time to explain or occur instantaneously. Instantaneous verbs are called punctual, and those that require a time/time interval are called durative.

The semantic structure of a sentence consists of two main semantic units, namely verbs and nouns. The verb is the center that means that the verb determines the presence of the noun in the semantic structure. The description of the four verb categories above shows that the verb categories continue to be refined. Each verb has its own inherent characteristics. The inherent characteristics of a verb are not tied to the form of the verb. That is, whether the verb is in the form of a base word, a word without affixes, or one with affixes, it does not affect the inherent characteristics contained in it. The category of verbs needs to be studied in conjunction with collocation because it can show differences in the inherent meaning of verbs.

D.   Noun

Kridalaksana (1994, p. 69-70) divides nouns into three categories: animate and inanimate nouns, countable and uncountable nouns, and collective and non-collective nouns. Animate

nouns are divided into persona nouns, and flora and fauna while inanimate nouns are divided into names of institutions, geographical concepts, time, language names, measures and measures, and imitations of sounds. Countable nouns are nouns that can be counted while uncountable nouns are nouns that cannot be counted. Collective nouns are nouns that can be broken down into members or parts while non-collective nouns are nouns that cannot be broken down into parts.

In general, nouns are words that refer to people, places, or things. Nouns can be divided into three groups: specialized nouns and general nouns, abstract nouns and concrete nouns, and countable and uncountable nouns (Hatch & Brown 1995, p. 219). Specialized nouns are nouns used for specific names of objects such as Betsy, Ohio, and the Mormon Tabernacle Choir while generalized nouns are nouns used for nouns in general such as women, state, choir. Abstract nouns are nouns that cannot be seen in form such as hope, understanding, love while concrete nouns are objects that have a real form such as dish, table, chair. Countable nouns are nouns that can be counted such as books, birds, pianos while uncountable nouns are nouns that cannot be counted such as applesauce, gravy, rice. According to Saeed (2016, p. 23), nouns are meaningful because they denote entities in the world. A noun refers to a combination of its denotation and conceptual elements. Thus, according to Saeed, nouns refer to a concept that is lexicalized.

From the description of the theory of nouns above, it can be concluded that a noun refers to a concept that is lexicalized. Nouns can be classified into animate & inanimate nouns, countable & uncountable nouns, collective and non-collective nouns, and abstract & concrete nouns. In this study, the classification of nouns is used in analyzing nouns collocated with the verb *increase*.

METHOD

To collect the data, the researcher used the student-generated texts data. The data sources of this research are the BAWE corpus and the IEWE corpus. Corpus comes from Latin meaning body or collection which in the closest meaning refers to a collection of texts from a language variety that can represent as much as possible a trend or phenomenon of the variety (McEnery and Wilson, 2007). Therefore, a corpus refers to a data set consisting of hundreds of thousands or even millions of words that reveal interesting things about a language.

The researcher used an existing corpus, British Academic Written English (BAWE), and compiled her own corpus. Both of these corpora can only be processed with the Sketch Engine web-based application (Jakubicek, 2019). Sketch Engine is a collection of corpus data (more than 90 language types) from spoken and written language varieties. Sketch Engine is a widely used application for exploring language use and displaying data quickly. The existing corpus is the BAWE sub-corpus which can be accessed through the Sketch Engine website (https://www.sketchengine.eu/). The selection of the corpus in this study is for the sake of limiting the discussion of English academic work data.

The second corpus is Indonesian Economic Written English (IEWE) corpus. This research data source is used to identify the collocational use of the verb *increase* and its objects (nouns) used by Indonesian mother-tongue speakers. The corpus was built independently and consists of academic journals in economics in English written by Indonesian speakers. The reason for

choosing Sinta 2 accredited national journals as another source of research data is that there is no need for competency testing. The corpus consists of 222 articles with 1,103,472 tokens.

The analysis of the semantic field is conducted because the meaning field functions as a structure that can help researchers to distinguish the referential meaning of the English vocabulary by decomposing its meaning components or features and finding meaning relations. 'Corpus' in its general sense refers to 'collections of texts that are stored and accessed electronically' (Hunston, 2002, p. 2) and usually designed for some linguistic purpose (e.g., forensic, pedagogic or ideological analyses). CL is defined as 'the study of language based on examples of "real-life" language use (McEnery & Wilson, 2001). Baker & McEnery (2005) highlight the advantages of using a corpus-based approach. They point out that a corpus-based approach can enable the researcher to zoom out from the data and have a thorough under-standing of the meanings.

According to Crystal (in Cheng, 2012, p. 29), corpus linguistics is an empirical method for analyzing and describing linguistic studies using actual language data in corpora as the first step. The search functions in studying corpus linguistics include word frequency lists, keywords, n-grams, concordance, collocation, and colligation. This research only uses concordance and collocation search functions. Concordance refers to a list of words that collocate with other words and form a new meaning based on their context and connotations (Adolphs, 2006).

A.   Type of Research

This research uses a mixed methods research approach that involves qualitative (i.e., text) and quantitative (i.e., quantifiable data) data to understand and explain the research problem. One of the benefits of using mixed methods, according to Creswell (2015), is that it can provide a better understanding of a research problem than quantitative or qualitative data alone. In line with Creswell (2015), Litosseliti (2018) emphasizes that combining quantitative and qualitative approaches can provide a diverse set of data and increase understanding of complexity in most areas of linguistics in general. Furthermore, Creswell (2016, p. 299) explains that mixed research is divided into three main methods in social science today, namely convergent parallel mixed methods, explanatory sequential mixed methods, and embedded exploratory sequential mixed methods.

Based on the characteristics of the research approach proposed by Creswell, this research is a sequential exploratory research. This type of research begins with qualitative analysis of the data reinforced by quantitative analysis of several instruments to confirm the results of the qualitative analysis. In this research on the meaning field of English vocabulary, quantitative research is used to identify the frequency of occurrence of words that are the focus of analysis. The word that is the focus of analysis in this study is the verb *increase* and the economic nouns that collocate with the verb. Since the quantitative approach is only supporting, qualitative analysis is prioritized in the analysis. Qualitative research in this study includes descriptive method and comparative method. Descriptive approach is an approach in research that seeks to identify problems/phenomena, collect and analyze data to then get a precise description or interpretation of the problem or phenomenon under study. After getting a basic description of the phenomenon, the research will continue with a comparative approach to find conceptual overlaps owned by English native speakers and Indonesian speakers.

B.   Research Subjects

BAWE is a corpus of written English academic works at universities in the UK. The existing corpus is the BAWE sub-corpus which can be accessed through the Sketch Engine website (https://www.sketchengine.eu/). The selection of the corpus in this study is for the sake of limiting the discussion of English academic work data. BAWE is a corpus of written English academic works at universities in the UK. The corpus represents the pattern of British Academic English with 4 fairly evenly distributed discipline areas (Arts and Humanities, Social Sciences, Natural Sciences and Physical Sciences) and study levels (bachelor's and master's level). Since the data for this study is in the field of economics, a subcorpus was created by dividing the BAWE corpus by text type. In the BAWE corpus dashboard, click MANAGE CORPUS, then click SUBCORPORA. After selecting the required text types, click CREATE SUBCORPUS. After a few seconds, the subcorpus will appear on the advanced tab. The subcorpus consists of 341 student writing sheets with 1,105,467 tokens. The collocation data of verbs increase, improve, raise, develop, expand, extend, and enhance and the economic nouns studied in this research are sourced from this BAWE subcorpus.
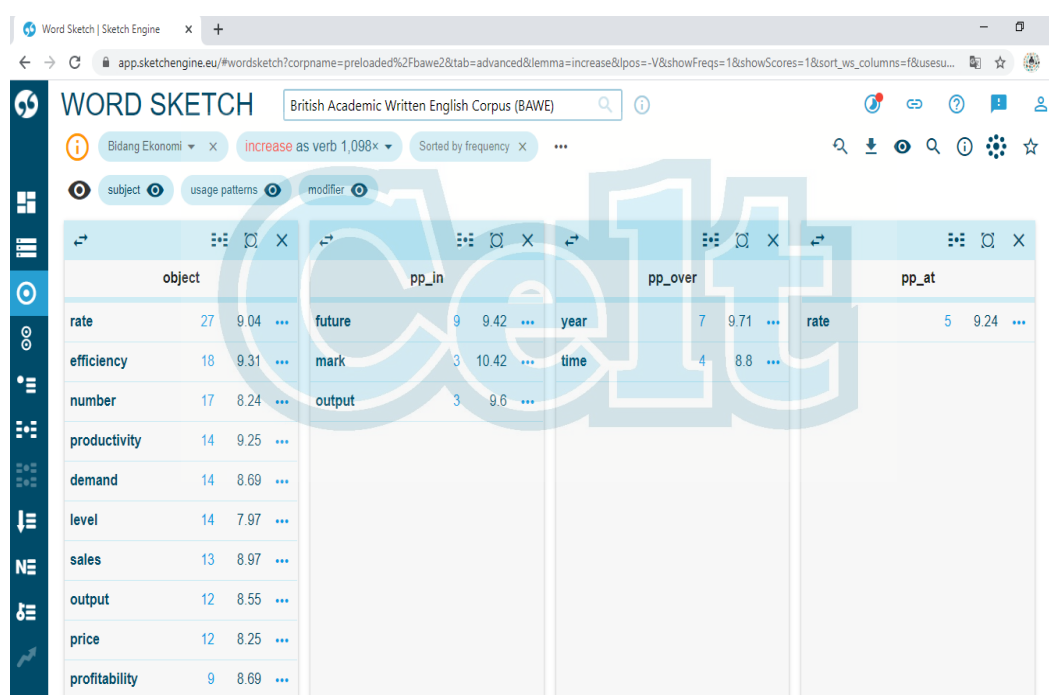

Figure 1:
Word Sketch Display on
British Academic Written English (BAWE) Corpus

The second corpus is the Indonesian Economic Written English (IEWE). This other research data source is used to identify the collocational use of the verb *increase* and the object (noun) used by Indonesian mother-tongue speakers of English. The corpus was built independently and consists of academic journals in economics in English written by Indonesian speakers. The reason for choosing Sinta 2 accredited national journals as another source of research data is that there is no need for competency testing. This corpus consists of 222 articles with 1,103,472 tokens. The Word Sketch display in the IEWE corpus can be seen in Figure 2.
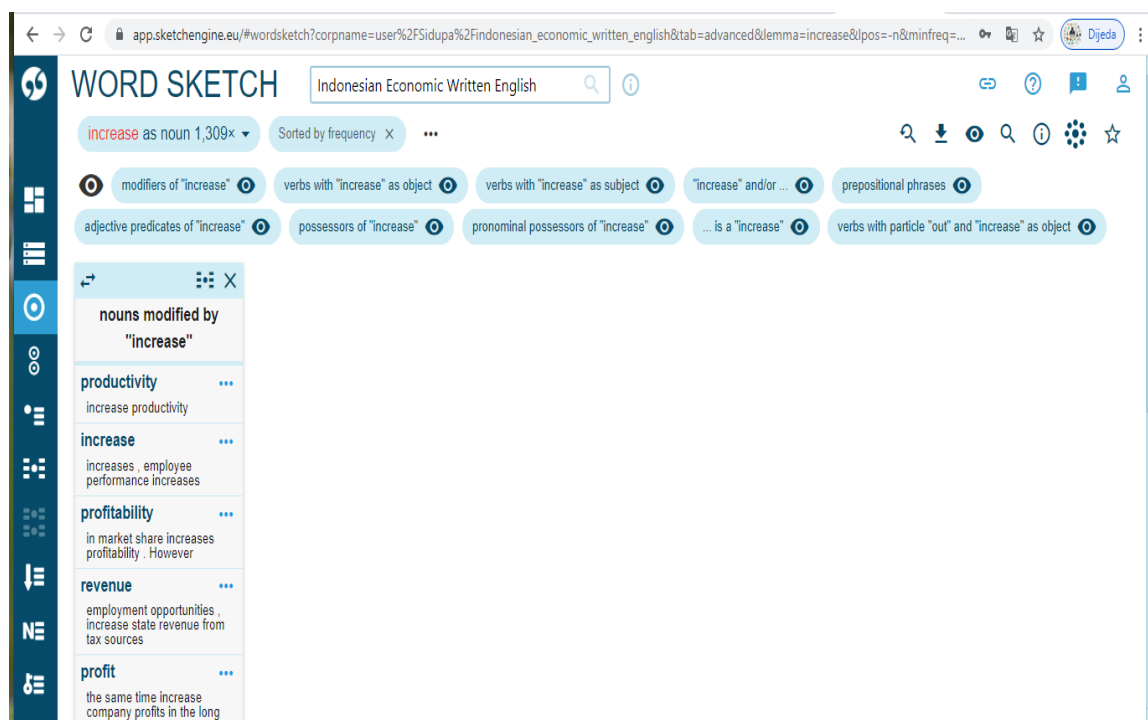
Figure 2:
Word Sketch Display on
Indonesian Economic Written English (IEWE) Corpus

The data corpus studied are collocations of verb *increase* and the objects (nouns) in the two corpuses above. From the types of collocates, the data corpus is divided into collocates of verb with economic objects (nouns). The total collocations of the seven verbs with objects in the BAWE corpus are 485 collocations while the total collocations of verb *increase* with objects in the IEWE corpus are 1,833 collocations. The data corpus of verbs with objects as a whole is used to analyze the meaning of verb using collocation theory, while the data corpus of verb with objects in economics is used to analyze the meaning of verbs from the lexical semantic approach.

C. Research Analysis

In a sequential exploratory design, the quantitative and qualitative databases are analyzed separately. The quantitative results are then used to plan the qualitative follow-up. Therefore, analysis takes place independently for each phase (Creswell, 2016, p. 300). The data analysis stage is the researcher's effort to deal with the problems contained in the data (Sudaryanto, 2015, p. 7).

1. Downloading the collocation data

   Download the collocation data of the verbs *increase* in the BAWE and IEWE corpus.

2. Analyzing the meanings

   Analyze the contextual meaning using two English dictionaries through concordance search to conduct the next analysis, that is semantic field analysis.

3.   <u>Analyzing the semantic field</u>

Analyze the semantic field of the verb collocates *increase* using Nida and Louw's meaning field classification.

4.   <u>Conducting a comparative analysis</u>

Conduct a comparative analysis for the semantic field constructed by the significant collocate meanings of *increase* used by English native speakers and Indonesian speakers.

RESULTS AND DISCUSSIONS

The results of this study provide information on concepts of English native speakers and Indonesian speakers represented by differences in the collocations of English VNs used for *increase*.

A.   English Native Speakers' Concept

Based on the result of the British Academic Written English (BAWE) corpus, the following table shows the frequency of occurrence of collocate and significant collocate of the verb 'increase' in more detail:

Table 1:
Frequency of occurrence of collocate and significant collocate of verb 'increase' in the BAWE corpus

No.	Collocate	Frequency	No.	Collocate	Frequency
1	rate	27	51	will	3
2	efficiency	18	52	satisfaction	3
3	number	17	53	volume	3
4	productivity	14	54	target	3
5	demand	14	55	presence	3
6	level	14	56	firm	3
7	sales	13	57	consumer	3
8	output	12	58	frequency	3
9	price	12	59	size	3
10	profitability	9	60	employee	3
11	likelihood	9	61	understanding	3
12	awareness	9	62	range	3
13	power	9	63	sales-force	2
14	revenue	8	64	spend	2
15	supply	8	65	surcharge	2
16	income	8	66	mark-up	2
17	share	8	67	holding	2
18	production	8	68	volatility	2
19	profit	8	69	pay	2
20	cost	8	70	GDP	2

21	flexibility	7	71	spending	2
22	motivation	7	72	prospect	2
23	chance	7	73	membership	2
24	capacity	7	74	turnover	2
25	risk	7	75	welfare	2
26	appeal	6	76	employment	2
27	investment	6	77	visitor	2
28	value	6	78	legitimacy	2
29	percentage	5	79	loyalty	2
30	base	5	80	credibility	2
31	wage	5	81	debt	2
32	return	5	82	inflation	2
33	competition	5	83	mark	2
34	trade	5	84	deficit	2
35	amount	5	85	consumption	2
36	occupancy	4	86	trust	2
37	availability	4	87	yield	2
38	probability	4	88	age	2
39	worker	4	89	effectiveness	2
40	pressure	4	90	quantity	2
41	performance	4	91	balance	2
42	customer	4	92	field	2
43	attendance	3	93	threat	2
44	willingness	3	94	flow	2
45	attractiveness	3	95	period	2
46	export	3	96	possibility	2
47	saving	3	97	figure	2
48	unemployment	3	98	quality	2
49	penalty	3	99	world	2
50	current	3	100	growth	2

The result as seen in Table 1 confirms that the verb *increase* in the BAWE corpus has 100 significant collocates. This means that the collocates of the verb *increase* vary greatly. Based on the data, the words *rate*, *efficiency*, and *number* are the three words with more frequency of occurrence as nouns compared to other nouns.

1. … during this period, there was a higher natural unemployment and a higher expected inflation. The oil price shock *increased* both the natural unemployment *rate* and the expected inflation rate in the 1970s. By the early 1980s, the effect of the …. (2.1. INC.001.020)

2. … retain the motivation to produce. Olson's notion of encompassing interest explains why a strong state can serve to *increase* economic *efficiency*. The costs of providing public goods are very large, …. (2.1. INC.002.004)

3. ... weakness of Asda is the fact that they have fewer stores than the other supermarkets, so there needs to be an urgency to *increase* the *number* of stores, which, I believe, is likely to mean a takeover is on the cards. In conclusion, the supermarket .... (2.1. INC.003.008)

Apart from the three nouns above, from the significant colloquialisms, mostly the verb *increase* requires both a quantified noun and an unquantified noun to give a referential meaning *quantity*, such as *productivity, demand, level, sales, output, price, revenue, supply, income*.

Other words that refer to the quantity of goods or services are *sales*, that refers to the number of sales of goods or services in a certain time, and *output*, that refers to the amount of goods or services produced by a person, machine, organization, or industry in a certain period of time. The amount of goods or services is also shown in the words *supply, production, capacity, amount, export, volume, range, quantity, figure*. Next, *price* as a significant collocate refers to the amount of money that must be paid for a product or service. Besides *price*, other collocates that refer to an amount of money are also shown in the words *revenue, income, profit, cost, investment, wage, return, saving, spend, surcharge, pay, spending*. The verb *increase* can also be paired with abstract nouns, such as in the words *profitability, awareness, motivation*, that refer to the meaning of 'making something plentiful or higher'. Thus, from the significant collocates, the verb *increase* represents the spatial concept of 'up', as shown in the following Figure 1.
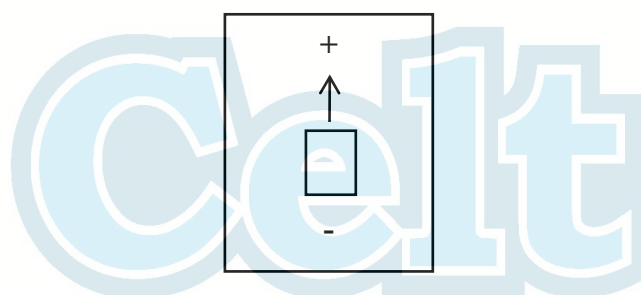

Figure 3:
Spatial concept of 'increase'

B. Indonesian Speakers' Concept

Based on the result of the Indonesian Economic Written English (IEWE) corpus, the following table shows the frequency of occurrence of collocate and significant collocate of the verb 'increase' in more detail:

Table 2:
Frequency of occurrence of collocate and significant collocate of verb 'increase'
in the IEWE corpus

No.	Collocate	Frequency	No.	Collocate	Frequency
1	growth	90	51	success	11
2	number	89	52	source	11
3	productivity	88	53	opportunity	11
4	value	88	54	capital	11
5	income	57	55	policy	11
6	level	51	56	absorption	10
7	profit	41	57	confidence	10

8	profitability	37	58	probability	10
9	cost	34	59	role	10
10	revenue	33	60	serotonin	9
11	expenditure	33	61	GRDP	9
12	price	33	62	GDP	9
13	efficiency	32	63	advantage	9
14	interest	31	64	self-confidence	8
15	satisfaction	31	65	likelihood	8
16	year	30	66	employment	8
17	spending	29	67	transparency	8
18	investment	29	68	competition	8
19	rate	28	69	earnings	8
20	risk	27	70	behavior	8
21	performance	27	71	product	8
22	production	26	72	wealth	7
23	demand	26	73	prosperity	7
24	HDI (Human Development Index)	25	74	concentration	7
25	sale	24	75	turnover	7
26	awareness	24	76	understanding	7
27	competitiveness	23	77	wage	7
28	output	22	78	power	7
29	ability	21	79	poverty	7
30	quality	21	80	innovation	7
31	consumption	20	81	asset	7
32	loyalty	20	82	diversification	6
33	share	19	83	supply	6
34	capacity	18	84	saving	6
35	activity	18	85	stock	6
36	effectiveness	17	86	accountability	6
37	trust	17	87	capability	6
38	commitment	17	88	percentage	6
39	amount	17	89	trade	6
40	welfare	17	90	inclusion	5
41	knowledge	16	91	credibility	5
42	debt	15	92	literacy	5
43	return	15	93	inflow	5
44	trend	14	94	allocation	5
45	potential	14	95	independence	5
46	participation	13	96	engagement	5
47	inflation	13	97	perception	5
48	motivation	12	98	good	5
49	ratio	12	99	resource	5
50	desire	11	100	development	5

The result as seen in Table 2 confirms that the verb 'increase' in the IEWE corpus has 100 significant collocates. Based on the data on the frequency of occurrence of the verb 'increase' in the corpus, it is known that the words *growth, number, productivity,* and *value* are the four words with the highest frequency of occurrence as nouns compared to other nouns.

1.   ... by investing in new projects that will *increase growth.* Research findings regarding demand uncertainty **....** (2.2.INC.001.007)

2.   The rice price was increased by 1% and could *increase* the *number* of poor people by 0.261 percent. (2.2.INC.002.049)

3.   ... research, local governments are expected to *increase* labor *productivity* through increased budget allocation for education **....** (2.2.INC.003.011)

4.   ... can be used by company management in *increasing* company *value* related to corporate governance and profitability. (2.2.INC.004.020)

In addition to the above four nouns, from the significant collocates, mostly the verb *increase* requires both a quantified noun and an unquantified nouns to give a referential meaning referring to an amount, such as *income, level, profit, cost, revenue, expenditure, price, interest, spending, investment, rate, production, demand, sale, output, consumption, share, capacity, amount.*

Other collocates referring to an amount of money are shown in the words *expenditure, price, spending, investment, amount, debt, return.* In addition to countable and uncountable nouns to give a referential meaning to quantity, the verb 'increase' can also be paired with abstract nouns, such as in the words *profitability, satisfaction, ability,* that refer to the meaning of 'making something plentiful or higher'. Thus, from the significant collocates, the verb 'increase' that has the meaning of 'to increase' represents the special concept of 'up', as shown in the following Figure 2.
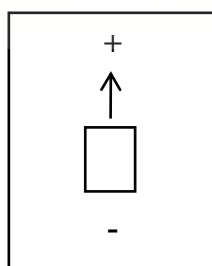

Figure 4:
Spatial concept of 'increase'

CONCLUSION

To this point, the frequency of occurrence of collocates and significant collocates of English verb *increase* helps reveal the concepts used by English native speakers and Indonesian speakers. The frequency of occurrence of collocates and significant collocates are used as conceptual markers. In fact, the collocates mark the conceptual mind of English native speakers and Indonesian speakers. Here, the concepts used by English speakers can be identical or different from the concepts used by Indonesian speakers. For example, in most of the significant colloquialisms, the verb *increase* refers to the meaning of 'meningkatkan' in terms of quantity, as shown in its collocates *rate, efficiency, number.* For Indonesian speakers, mostly the verb *increase*

collocates with *growth*, *number*, *productivity*, and *value*. Therefore, the concept the verb *increase* used by English native speakers is identical with Indonesian speakers that represents the spatial concept 'up'.

The conceptual contribution of the verb *increase* in the economic field from this research are expected to be used in teaching English collocations. Mastery of collocation knowledge is considered an important indicator of language proficiency level, especially productive competence. The learners, hence, are not only expected to be able to match two or more words, but also the appropriateness and accuracy of putting the meaning of the word in context, especially in writing skill.

ACKNOWLEDGEMENT

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