# A STUDY ON SYNTACTIC AND SEMANTIC OF COMPOUND WORDS IN THE RECIPE BOOKS

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| Article history: | Abstract |
|---|---|
| | *This study focuses on the syntactic and semantic process of compound words used in the recipe books. This qualitative descriptive study aims to classify the types of compounds and analyse the semantic and syntactic structure of compounds. This study used Lieber's (2009) theoretical framework of compound words to analyse the data. This study used 40 compound words from selected recipe books. Morphological analysis is used to analyse the compound words, classify the types and the meaning of compound words on the food terms. Based on the samples chosen, mostly hyphenated compounds, attributive compounds and verb compounds were used in the recipe books.* |
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## INTRODUCTION

A compound is the construction of a novel word by merging two or more free morphemes (Bauer, 2003, p.40). In the English language, compound words are used frequently in many areas or fields. Compounds in English can be characterised in many ways, such as the semantic relationship of word categories or their constituent parts. Language change in the entirety of their perspectives, such as pronunciation, punctuation, word structures, and meanings (semantic change). These progressions are generally exceptionally continuous in their activity, becoming noticeable only cumulatively for several generations. Most English noun compounds are noun phrases, which contain nouns adapted from adjectives or noun auxiliary words. However, these two categories are not continuously changed. Compound nouns in English are composed of two or more words recursively by connecting two base words 'tea' and 'spoon', which results in a compound *teaspoon.* Furthermore, *'science'* and *'fiction'* and then connect with *'writer'* forming a compound word *'science fiction writer'.* However, some compounds cannot be constructed in this way, like *salt and pepper*. Compound words are composed of stems, in which the combination of two independent words forms a word. The various parts of compound words can be free morphemes, derived words, or other compound words (Arifin, 2009: p.1). According to Srijono (2010, p.53), compounding is the process of combining lexical categories such as nouns, verbs, adjectives, or prepositions to create more essential words. The resulting meaning is new to its elements. Marchand (1960, p.11) divided the compound into a *determining (modifier)* and a *determined part (head).* The determinator is the grammatically main fragment, which is determined by the first word of the compound (e.g. *bedroom*), which means that the prototype of a compound generally reports on something, which is a particular case or a subordinated amount of the *head* (see Table 1). For instance, it is so evident that

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*small **talk*** is a kind of conversation, and a *black**bird*** is a type of bird. The study of compounds is currently the focus of attention in all linguistics fields. According to Appah (2013), compounding is the method of making words by joining two or more bases, and each base may appear as a grammatical atom elsewhere in the grammar. Although the recipe book contains a wide range of compounds that show very effective word-formation strategies, there is relatively little study on the compounds in the recipe book. When it comes to the classification of compounds, almost all investigations are conducted from the perspective of syntax and phonetics (Dolphyne, 1988; Anyidoho, 1990; Marfo, 2004; Abakah, 2006). Semantics and other possible methods of compound classification have not received much attention in recipe books. Therefore, this study will analyse the syntactic and semantic classification of compound words in recipe books.

**Table 1: Examples by Syntactic and Semantic Classification**

| Modifier | Head | Compound |
|---|---|---|
| noun | noun | *football* |
| adjective | noun | *blackboard* |
| verb | noun | *breakwater* |
| preposition | noun | *underworld* |
| noun | adjective | *snow white* |
| adjective | adjective | *blue-green* |
| verb | adverb | *tumbledown* |
| preposition | adjective | *over-ripe* |
| noun | verb | *browbeat* |
| adjective | verb | *highlight* |
| verb | verb | *freeze-dry* |
| preposition | verb | *undercut* |
| noun | preposition | *love-in* |
| adverb | preposition | *forthwith* |
| verb | adverb | *takeout* |
| preposition | adverb | *without* |

In word-formation processes, compounding is a very effective strategy where many new words have been added to the language's dictionary. As a result, most scholars turned their attention to compound study (Dolphyne, 1988; Anyidoho, 1990; Marfo, 2004; Abakah, 2006; Appah, 2013). Regarding the classification of compounds, most scholars have focused on the syntactic categories and phonology of the components (Abakah, 2006; Anane, 2010; Appah, 2017). Therefore, the semantic classification of compounds requires in-depth attention because, in Malaysia, compound research is still in the early stages.

This research aims to report the syntactic and semantic classification of compound words in recipe books, which will contribute to the field of morphology from two aspects. First, this study will classify the syntactic and semantic types of compound words in a recipe book. Second, society, scholars, and students can get the findings of the study to expand the understanding of the compound words used in recipe books and their meanings.

This research focused on only compound words from recipe books; *a limited sample.* Therefore, the number of samples obtained is limited to the generalisation of the study. Furthermore, the data collection and analysing processes were *time-consuming*. Thus, the analysing processes of the form and language features (grammar and semantic classification) of compound words were analysed to draw generalisation of the study.

**LITERATURE REVIEW**

**1.  Morphology and Morpheme**

Morphology is about studying morphemes, part of words, and the formation of words (Nida, 1949, p.1). O'Grady (1997, p.132) stated that the system and rules of the categories involved in word-formation and interpretation are called morphology. At the same time, morphology is the learning of structural words (Katamba, 1993, p. 19). Fromkin and Rodman (2003, p.76) mentioned morphology is the study of the core construction of words and the instructions by which words are coined. For instance, *chairs* made of two morphemes: *free morpheme chair* (furniture) and a *bound morpheme -s* (plural and inflectional suffixes), and the *chairman* (head of an organisation) consists of two free morphemes (chair and man). It can be determined that morphology is the learning of morphemes and the arrangement of words in the compounding process. Morphology is about morpheme and the construction process of morphemes into the smallest unit of grammar. Morphology is a process of investigating morphemes involved in the word-formation when a word is possibly formed of one or more morphemes.

According to Yule (2010, p.67), a morpheme is the smallest grammatical meaning in a language or is the smallest meaningful unit of a language. Aronoff and Fudeman (2011, p. 2) added that by identifying and studying morphemes, morphologists have an essential way to study words, internal structure, and formation. As mentioned above, morphology is a study of a morpheme. Morphemes are different from words. The main difference between morpheme and word is that morpheme may not be independent. On the contrary, a word is an independent form by definition. A word is said to be able to independent because the root has a connotation of its words (e.g. the free morpheme <u>bird</u>). When it is subject to another morpheme to convey an idea or different idea, it is an affix because it has a grammatical function (e.g. the bound morpheme -s in bird<u>s</u> to indicate that it is plural). Morphemes are divided into two; they are the free morphemes and bound morphemes (O'Grady, 1997, p.113). A morpheme that can be a word is a free morpheme, whereas a morpheme that must be combined with other elements is bound morpheme. There are three kinds of morpheme, such as root, affix, and inflectional affix. The one familiar of two terms in affixes are prefixes and suffixes. McCarthy (2002, p.20) said that the root of a compound word is usually free. In most cases, prefixes and suffixes are the most important (e.g. <u>en</u>larges) the prefix (en-) combined with root word is large and in read<u>able</u>, the root word is read + suffix (able).

Some elements can be used to create word structures such as roots, stems, and bases. According to Katamba (1993, p.41), the root is the fundamental core of a word, and there are no other words in it. The root is an integral part of all morpheme forms, and the root can have various structures. If the inflectional affix is removed from the word, the remaining words are said as stems. The base is defined as the attachment as long as there is a unit (regardless of its type). All roots are BASES, but not all BASES are roots. According to Katamba (1993, p.45), bases are stems from the framework of inflectional morphology. Lexemes and words are linguistic subunits, which are more important than morphemes. Katamba (1993, p.13) termed lexemes and words differently. It can be said that lexeme is a vocabulary item registered in the dictionary as well, the words are seen as a demonstration of a lexeme which is connected with specific morphosyntactic aspects (e.g. noun, adjective, verb, adverb, pronoun, preposition, conjunction) and partly syntactic features (e.g. tense, mood, and gender, number).

**2.  Compounding**

It is not easy to come up with a standard that applies to all situations knowing the order of words is very complicated. Lieber (2009, p.43) pointed out that English compound words cannot be identified by spelling because there is no static system to

spell compound words. For instance, the *greenhouse* is one word, the *dog bed* is two words, and the *producer-director* is noted with a dash (-) amid the two words. A compound lexeme is made of two or more simple lexemes (Matthews, 1991, p. 82) as in *blackbird* is a compound noun that combines the forms of black and bird. However, Yule (2010, p.55) defined compounding as is one of the subjects of morphology, and it is studying how new words are connected with two or more single words and become new meanings. O'Grady (1997) classified the three forms of compound words such as closed-form are the words are combined, with space on the words (e.g. *firefly*), a hyphenated form which contains a hyphen (-) to connect each other (e.g. *daughter-in-law*) and open form where the words are combined with space as in *post office.* There are also compounds, which are combined with different classes and structures. Similarly, compound words are words coined of two or more bases, roots, or stems (Lieber, 2009, p.43). Generally, in English, free bases are used to form compounds, such as two nouns, two adjectives, one adjective, and one noun or a combination of noun and one adjective, as shown in Table 1.

3. **Compound Structure**

The internal structure of compound words is the same as that of derivative words. This structure can be represented in the form of a tree diagram; for example, the compound word *windmill* (Diagram 1). Compound words need not be limited to two bases. Lieber (2009, p.43) called compounding as a recursion method, which means that a compound word of two bases also can be compounded with one more base. This compound word and extra-base can produce very multifaceted compound words like derivative words, and tree diagrams can be used to display the internal structure of complex compounds.

**Diagram 1: Example of Compound Structure**

*windmill*
**(N)**

*wind*        *mill*
**(N)**        **(N)**
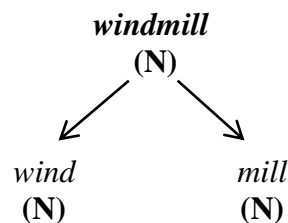
4. **Types of Compounds**

There are many ways to classify compound words in English and other languages (Lieber, 2009, p.46). For compound words, the *head* is used to govern the part of speech and the semantic type of the whole compound word. For instance, the base fixes the part of speech of compounds such as a *greenhouse* (noun), or *sky blue* (adjective) is all times the second one. Likewise, the second base controls the semantic category of the compound word, in the earlier example, a type of building. In the last colour, therefore, English compounds are said to be right-headed. A common way to classify compounds is to divide them into root compounds and synthetic compounds. Synthetic compounds (e.g. *dog walker, hand washing,* and *homemade*) consist of two words; the *head* of the word is derived from the verb, and the non-head is the argument of the verb. The root compounds (e.g. *windmill, ice-cold*, and *red hot*) are composed of two words, which may be nouns, adjectives, or verbs. The second word is usually not derived from the verb. The understanding of the semantic relationship between the head and the non-head in the root compound is entirely free, as long as it is not the association between the verb and its argument. Lieber (2009, p.47) classified compound words conferring to the semantic and

grammatical relations between the elements that construct the word. Lieber (2009) proposed this useful comprehensive classification based on three types of relationships.

a) Attributive Compounds

The non-head is used as a modifier of the head in attributive compounds (such as *snail mail*). *Snail mail* is figuratively a mail that moves like a snail, while a *windmill* is a mill stimulated by the wind. When using attribution compounds, the first element may express almost any relation to the head. For instance, a *textbook* is a book used in school, a *yearbook* is a record of school activities during the year, and a *notebook* is a book to write notes. There is a semantic relation between the two bases in the *mud wheel* since the first one modifies the second one (Lieber, 2009, p.47). *Mud wheels* refer to wheels used in mud, wheels made of mud, wheels covered by mud.

b) Coordinative Compounds

Lieber (2009, p. 47) stressed that in a coordinate compound, the first element of the compound word does not modify the second; instead, the two bases have equal weight as in *doctor-patient, blue-green*, *prince consort,* and *producer-director.* The *producer-director* is like a producer and a director. The spouse of the prince is both the prince and the partner. *Blue-green* is a compound that represents a combination of two colours. Some coordinative compounds show the relationship between these two bases (such as confidentiality between doctors and patients). In the coordinative compound, both words are semantic heads.

c) Subordinative Compounds

Subordinate compounds usually occur when one word of the compound is a verb or is derived from a verb, which means that synthetic compounds are subordinate in English. In a coordinate compound, the first word of the compound does not modify the second; on the contrary, the two have equal weight. Lieber (2009, p.47) found a third semantic and grammatical relation in the subordinate complex. In subordinate compounds, one element is interpreted as a parameter of another component and is usually interpreted as to its object. It can be seen that the subordinative compounds are explained in a specific way. In compounds, the first word is understood as the object of the verb that creates the base of the synthetic noun (e.g. a *truck driver* is a person who drives a truck). Another example is *food preparation* includes preparing food. Lieber (2009, p.47) referred to the compounds as attributive, coordinative, and subordinate compounds into endocentric and exocentric.

d) Endocentric Compounds

In endocentric compounds, the referent of the compound word is continuously the same as the referent of its head; thus, a *windmill* is a kind of mill, and a truck driver is a kind of driver. Compound words termed exocentric when the referent of the compound word as a whole is not the referent of the head. For instance, attributive compounds in English are all referred to as the type of person, absolutely stupid or annoying, rather than referring to the type of head, brain, or clown, respectively. Therefore, the *airhead* is a person with only air on his head. All three compound words can be central words, such as attributives (such as *windmill*), coordinates (such as *producer-director*), and subordinate words (such as the *truck driver*).

e) Exocentric Compounds

In coordinative compound words (e.g. *doctor-patient* and *parent-child*), the head refers to different types of people. Still, the compound word as a whole indicates the relation between its elements. In English, *pickpocket* is the subordinate compound which denotes not a type of pocket, but a person who picks up pockets.

f) Noun Compound

In English, mostly noun-noun compounds are found, and those are right-handed, the *headedness* is placed at the right side (the second one) of the compound. Noun-noun compounds mostly found in all forms because they denote a subclass of the referents of the *head* as in a laser printer is a kind of printer, a book cover is a type of cover, a letterhead is the head of a letter. These are endocentric compounds because they have the semantic head. Mostly, the compound words in English are endocentric, because they have a head. Generally, the head appears at the right hand of the components of those compound words. Katamba (1993, p.311) said that semantically an endocentric compound shows a sub-category within the class of units that the head denotes, such as a *schoolboy* is a kind of a boy, and a *bedroom* is a kind of room. McCarthy (2002, p.62) further added some examples of noun types compounds; verb-noun (e.g. *playtime*), noun-noun (e.g. *mosquito net*), adjective-noun (e.g. *greenstone*) and preposition-noun (e.g. *in-group*) which have the primary stress on the left. The *hair fixers, butterfly nets,* and *mosquito nets* are spelled with spaces. From a grammatical point of view, each fact that forms a complex word will not be affected.

g) Adjective Compound

This type is also stressed on either first word or last word analogous with the noun compound; an adjective compound also consists of two words. According to Kreidler (1997, p.149), numerous adjective compounds are fore-stressed (e.g. *knock-kneed, homesick*) and end-stressed (*air-cooled, well-bred).*

h) Adverb Compound

This adverb compound usually has stress in final words, like head - 'first, north-'east, and downstream. Adverb compounds are termed end-stressed or final stress when pronounced as an isolated word such as *backstage, downtown, indoors, outside, overhead,* and *underfoot* by Kreidler (1997, p.51).

i) Verb Compound

Verb compounds also use particles as the first element and have end-stressed on that element. In some cases, there are nouns (e.g. *afterthought, downfall, infield, onset, overcoat*) and verbs (e.g. *infringe, outgrow, overcome, undergo, uphold*).

## METHODOLOGY

A descriptive qualitative method is used to achieve goals and objectives, and this technique helped to research specific subjects in-depth, without being measured by the predetermined exploration category. This design is more suitable for providing overall and subjective results because it is about understanding compound words. This research method highlighted openness and flexibility, making it a valuable tool that is thoroughly related to data collection and aided to analyse the syntactic and semantic classification of compound words. This method assisted in classifying compound words by word forms and classes. The qualitative approach generated ample of evidence about a small number of samples, which contributes thoughtful results. The process found that no numerical or quantitative data will be established (Silverman, 2004; Bell, 2005; Sarantakos, 2005). The qualitative method is a research procedure with descriptive data, which includes written and oral communication of individuals or their behaviour (Bogdan and Taylor, 1992); therefore, the collected data is entirely pictures, sentences, or words.

The samples were collected from recipe books. Three recipe books were used for collecting compound words. The focus of the study is on compound words, which are written in recipes by celebrity chefs. The researchers analysed the formation of compounds founded by Lieber (2009). The researchers also summarised the differences in the methods used and the meaning of compound words. The compound words from the recipe books were collected

using purposive sampling to help answer the research questions. The target sampling method is the simplest method to obtain the target sample efficiently and quickly. Patton, 2002 mentioned that purposive sampling is a method commonly used in qualitative research to collect and record useful data out of inadequate sources. Sugiyono (2011, p.300) added a purposive sampling covers techniques for determining the samples. These techniques have some specific considerations to obtain data that can be more representative in the future and then use qualitative research as an analysis method.

The samples were taken from the series of recipe books titled *Mission – Malaysian Celebrity Chef Series (2015).* The examples of compound words were taken from three books from the edition. These recipe books consist of local, international, and continental cuisines. The primary samples were compound words, all words were recorded, but only ten samples were analysed and discussed in the study. The data collection process focused on studying compound words, so only the rare words given more attention, as well as the new words. Based on the statements above, compound words, which were contained in the recipe book, were prevalent in people's daily life, there were plenty of the same basic terms, which used in the recipe book and repeated frequently. The researchers described the compound words using a tree diagram. Then, the researchers identified the types of the compounds, interpreted the meaning of the word using the dictionary, which guided to sort its semantic classification. The researchers explained the qualifications of compound words in culinary terms.

For the procedure of the research, first, a library study was initiated to find evidence about compound words and apt analytical models. Then, the samples (only compound words) were collected from a series of recipe books. After that, the selected samples were catalogued manually according to its classification of syntactic and semantic type with the meaning of the compound words. Next, the definitions of the base words and compound words used to identify the semantic classification of the samples. Later, all data were gathered by listing its syntactic and semantic category (Lieber, 2009). The tabulation guided readers to understand the combination of words and to identify the classification of compound words based on the syntactic and semantic types. The table is divided with the compound words and its meanings to illustrate the formation of classified compound words. The syntactic and semantic types of compound words were recorded using Lieber's (2009) theoretical framework. The meanings of compound words were the foremost step to determine the semantic classification. Then, the definitions of the two words were joint to govern the description of the compound word formed finally. Therefore, the meaning of compound words is significant for summarising semantic classification. If the definitions of two words were synonymous in meaning, then both words are heads, it is under a coordinative compound. In contrast, the description of attributive compounds is a sequential chain with modifiers and heads.

The samples were compiled conferring to the arrangement of syntactic and semantic types of compound words using Lieber's (2009) model. Systematic techniques of data processing are required to execute this study, which identified the data source on compound words in the recipe books. After the data were collected, the researchers took samples, which were the cooking terms contained compound words process. The researchers specified the steps of data processed in this study, such as read the recipe books and analysing the compound words process, the forms, and the connotation of compounds, which were collected in the recipe books. Then, the researchers also engaged the English dictionary as the reference of words or terms, part of speech, and the connotation of the compound word that checked in the recipe books. The researchers illustrated the tree diagrams and then transcribed the conclusions and interpreted the type and meaning in each compound word. In the table, the researchers classify the types a compound word, which was found in the data. The researchers analysed the syntactic and semantic classifications of compound words and recorded the report.

**FINDINGS AND DISCUSSION**

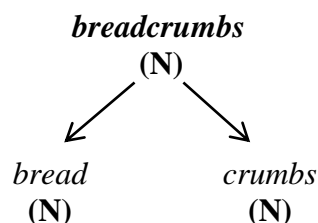**1.**                                              **Findings**

This table was constructed by relating framework from Lieber (2009) with some modifications based on the results of the study, which comprise syntactic and semantic classifications of compound words from recipe books. The findings showed that there are 40 compound words; there three types of compounds, such as closed compound, opened compound, and hyphenated compound. Based on the function of compound words, there are noun compounds, verb compounds, and adjective compounds. There are attributive, coordinative, and subordinative compounds in referring to the contextual meaning.

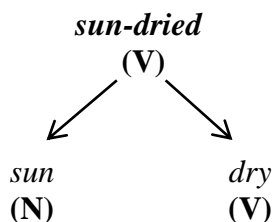**2.**                                              **Discussion**

**Sample 1:**

$$\begin{array}{ccc} & \textbf{\textit{breadcrumbs}} & \\ & \textbf{(N)} & \\ \swarrow & & \searrow \\ \textit{bread} & & \textit{crumbs} \\ \textbf{(N)} & & \textbf{(N)} \end{array}$$

The word *'breadcrumbs'* is a closed compound because there is no space or hyphen between the words consist of three morphemes in the formation. The first word (bread) is a free morpheme because it can be independent with the connotation of food made by mixing flour, water, and yeast. As a result, the noun compound is formed from a combination of two words; *bread* and *crumbs*, which means tiny pieces of food. The third morpheme is inflectional since it unites with the word *crumb* without changing its paradigm. An inflectional morpheme is a bound morpheme which does not change the grammatical category (the part of speech) when added to the root of a word, then, those combinations of words build a new word and become *breadcrumbs; it* is a plural with *-s*. This compound word is an attributive compound because either one acts as a modifier, and the other serves as the head. It was also a type of left-headed attributive compound, and it has a stress on the noun phrase *bread* that controls the whole word on the right-side. *Bread* acts as the modifier, and *crumb* functions as the head. Therefore, the *'breadcrumbs'* is an endocentric compound in which the referent of the compound word is always the same as the referent of its head. Based on the semantic relationship, *breadcrumbs* is categorised into an exact word that the meaning of the word could be foreseen from each morpheme.
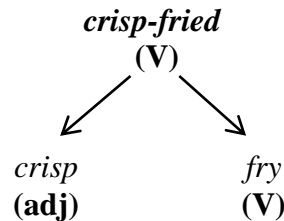
**Sample 2:**

$$\begin{array}{ccc} & \textbf{\textit{sun-dried}} & \\ & \textbf{(V)} & \\ \swarrow & & \searrow \\ \textit{sun} & & \textit{dry} \\ \textbf{(N)} & & \textbf{(V)} \end{array}$$

This sample is a hyphenated compound because the hyphen (-) separates the words. *Sun-dried* is a verb compound, which is consists of three morphemes; they are noun, verb, and suffix *-ed*. There are two free morphemes in this word; they are the sun (N) and dried (V). The word *dry*, the root word of *dried,* can stand alone with meaning. The root word is bounded with the suffix *-ed*, a bound morpheme that cannot stand independently with connotation. The inflectional bound morpheme (*-ed)* bonds with the

*dry* without changes its paradigm and meaning. Then, those combinations of words build a new word and become *sun-dried*. The suffix *-ed* attached to the root *dry*, and maintained the word class as a verb; therefore, *sun-dried* is a verb compound. The word *sun* acts as a modifier, and *dry* serves as a head in this right-headed attributive compound. Therefore, this is an endocentric compound in which one serves as the head and the other as its modifier, attributing a property to the head. *Sun-dried* defined as dry food in the sun.

**Sample 3:**

crisp-fried
(V)

crisp          fry
(adj)          (V)

This sample is a hyphenated compound because hyphen separates the words and a verb compound, which consists of two free morphemes; *crisp* is an adjective, and *fry* is a verb. The word *crisp* is an independent word, which means firm, dry, and brittle. Fry means cooking food in a hot oil method using a shallow pan. It does not change the part of speech, the paradigm of it, and the meaning when the suffix *-ed* is added to the root word. The definition of *crisp-fried* is to fry food until it is well cooked so that they are just dry and hard enough. This compound word is a right-headed attributive compound because the word *crisp* is a modifier, and the word *fry* is the head. Hence, this is an endocentric compound; it entails of a head, the specific part that contains the underlying meaning of the compound and modifier, which restricts the meaning.

**Sample 4:**

garam masala
(N)
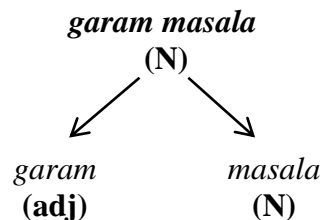
garam          masala
(adj)          (N)

This opened compound consists of two free morphemes; *garam* and *masala*. Since it is an opened compound, there is no space between the words. *Garam masala* is a noun compound, which is made of adjective and noun. Both of the free morphemes can stand-alone and have their meaning. *Garam masala* is from *garam* (hot), and *masala* (mixed spices) is a blended ground spice, originating from the Indian subcontinent, and shared in Indian cuisines. Independently each word has the meaning when combined as a compound defines a spice mixture used in Indian cooking. *Garam masala* is a right-headed attributive because the word *garam* acts as a modifier, and *masala* is the head. Thus, *garam masala* is an endocentric compound because the referent of the compound is the same as the referent of its head. A compound modifier is a compound word of two or more attributive words which cooperatively modify a noun. The compound modifiers are grammatically correspondent to single-word modifiers, which can combine with other modifiers.

**Sample 5:**

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*low-medium*
**(adj)**

*low*          *medium*
**(adj)**        **(adj)**

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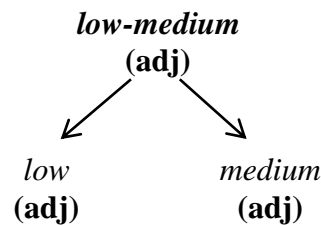
The *low-medium* is a hyphenated compound because it separates the words by adding a hyphen. *Low-medium* is an adjective compound, which consists of two free morphemes; both are adjectives. Compound adjectives are words, which are descriptive and usually hyphenated. The morphemes *low* and *medium* can stand alone with its meanings. The meaning of *low* is below average in amount, while the *medium* is halfway between two extremes of size or another quality. The compound adjective is formed when two are joined together to modify the same noun. This term should be hyphenated to avoid confusion or ambiguity. *Low-medium* means it is kind of medium but a lower one, and this explains that the word *medium* is the head and low articulate the relationship of the modifier. So, *low-medium* is a right-headed attributive compound with medium serves as the head and low acts as a modifier. The combination of two adjectives formed an adjective compound that brings meanings of heat level for slower cooking like leaner meats, stewing, stocks, reductions, and similar applications. *Low-medium* is an endocentric compound; because it is a kind of 'medium' of heat.

**Sample 6:**

<div align="center">

*lemongrass*
**(N)**

*lemon*          *grass*
**(N)**        **(N)**

</div>
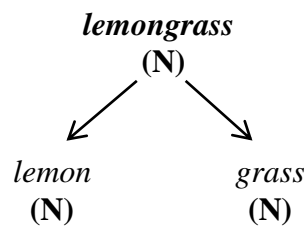
*Lemongrass* is a closed compound because there is space and is a noun compound; comprise of two free noun morphemes. These free morphemes can stand alone with their respective meanings. Lemon is a yellow citrus fruit, which is round in shape while the *grass* is a monocotyledon plant with narrow leaves growing from the base. Mostly, noun compounds in English are formed by nouns modified by other nouns or adjectives. *Lemongrass* is an attributive compound because *lemon* acts as modifier and *grass* functions as a head. *Lemongrass* is a grass type with leaves at the top and thick portion at the root end, which is cut or crushed to use in cooking. As a spice, fresh *lemongrass* is chosen for its aromatic flavour, denotes it as a right-headed attributive compound. In this sample, the first word describes or modifies the second word explaining the kind object it is or its purpose, thus *lemongrass* is an endocentric compound.

**Sample 7:**

<div align="center">

*preheated*
**(V)**

*pre*          *heat*
**(prefix)**        **(V)**

</div>
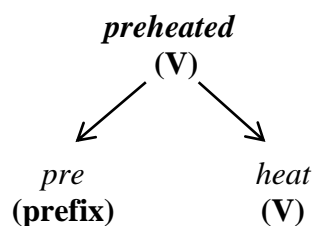
The sample mentioned above is a closed compound because it combines without space or hyphenation. *Preheat* is a verb compound because it described an action. Unlike a regular verb, a compound verb is made of two words. This compound word comprises three morphemes; *pre-* and *-ed* are bound morphemes, and *heat* is a free morpheme that can stand alone with their meanings. The prefix *pre-* is a prefix with the meaning of *before* can act as a preposition, conjunction, or adverb. It is said that compound verbs are usually open formed, but this is a closed compound. The root word heat can stand alone with the meaning of the quality of being hot, which has a high temperature. The root word added with prefix and suffix, bound morphemes that are dependent. Although suffix *-ed* attached to the root word, *pre-* does not change the part of speech, paradigm but changes the meaning. *Preheated* is defined as heat (something, especially an oven or grill) beforehand. Based on the definition, *preheat* is considered as an attributive compound because the first word modifies the head (*heat*), the second word, so *preheated* is an endocentric compound. According to Merriam Webster, compounds might also be formed from prefixes and suffixes as in *ex-president, super micro, pre-sorted, shirtless, or unforgivable.*

**Sample 8:**

**deep-fry**
**(V)**
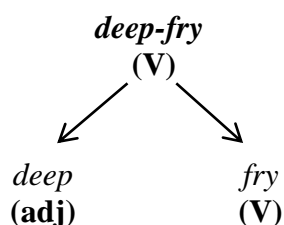
*deep*      *fry*
**(adj)**      **(V)**

*Deep-fry* is a hyphenated compound in which deep and fry are combined with a hyphen and is a verb compound because it demonstrates an action. A compound verb is to be differentiated from a sequential verb which classically signifies an order of activities, and in which the verb is comparatively equivalent in semantic and grammatical weight. It is also to be distinguished from arrangements of main plus auxiliary verb. A compound verb is a multi-word compound that acts as a single verb. One component of the compound is a light verb, which carries any inflexion, indicating tense, mood, or aspect, but provides only refined connotation. *Deep* means extending far down from the top or surface and *fry* cooking in hot oil using a shallow pan. The compound *deep-fry* is a right-headed attributive compound because the word '*deep*' modifies the head, '*fry*'. After all, it means fry (food) in an amount of fat or oil sufficient to cover it completely concluded that *deep-fry* is an endocentric compound.

**Sample 9:**

**double-boiling**
**(V)**
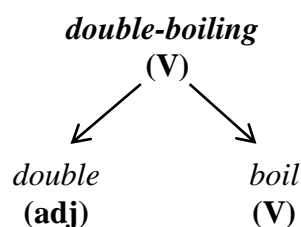
*double*      *boil*
**(adj)**      **(V)**

The sample, as mentioned earlier, is a hyphenated compound because hyphen separates the words and is a verb compound because it describes an action which consists of three morphemes; *double* is an adjective, the *boil* is a verb and *-ing* is a suffix. *Double* means consist of two equal, identical, or similar parts or things. It is also called *predeterminer*, which means twice or as many. The word *boil* is referred to as food, cook or be cooked by dipping in boiling water. *Double-boiling* is a method in preparing food

where a cooking tool of two saucepans fitting together so that the contents of the upper can be cooked by boiling water in the lower. Then, the inflectional bound morpheme, *-ing*, ties with the *boil* without changes it's paradigm and meaning. Therefore, a combination of all three morphemes formed a new word and become *double-boiling*, which maintained the word class as a verb; therefore, *double-boiling* is a verb compound. *Double-boiling* is a right-headed attributive compound because the word '*double*' modifies the head, '*boil*'. After all, it means a boiling method; therefore, it is an endocentric compound because it fulfils the same linguistic function as one of its parts of the grammatical construction of the compound. *Double-boiling* also can be categorised as a subordinative compound because one element is interpreted as an argument of another aspect. In English, endocentric subordinative compounds often have a nominalised verb as their head; in other languages, subordinative compounds are much more productive as a verb-formation process (Booij, 2007).

**Sample 10:**

*airtight*
**(adj)**
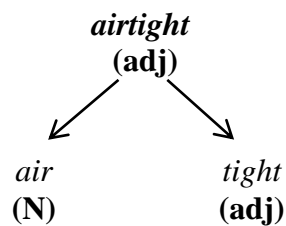
*air*          *tight*
**(N)**        **(adj)**

   *Airtight* is a closed compound because there is no space between the words. An adjective compound is a single expression made up of more than one word and is acting as a single adjective. This compound consists of two free morphemes; air (noun) and tight (adjective) can stand alone with respective meanings. *Air* is the invisible gases surrounding the earth (a mixture of oxygen and nitrogen), and *tight* is closed firmly, hard to open. The combination of the two free morphemes forms a new word (*airtight),* meaning not allowing air to escape or pass through. *Airtight* is a right-headed attributive compound because the word 'air' acts as a modifier and the word 'tight' functions as head; therefore, it is an endocentric compound because it accomplishes the same linguistic function as one of its parts of the grammatical construction of compound.

**CONCLUSION**

   Briefly, this study accomplished the aims of the research, which concluded that compound words could be categorised into syntactic and semantic types with the aid of Lieber's (2009) framework. Formation of an endocentric compound construction is one whose distribution if functionally equivalent to that of one or more of its components. For example, a word serves as a definable modifier and head. Generally, noun phrases, verb phrases, and adjective phrases belong to endocentric type because the component items are subordinate to the word. The compound word is subordinate to the head of the word, not the component items. For example, *fish* is a general group. The *jellyfish* is a specific item. Academically, this exploration shows the structure of compound words and classifies syntactic and semantic types of compound words. Compound words can be classified as attributive or coordinative depending on the placement of the head and modifier of the word and the meanings of the word. In the study, all attributive compound words are endocentric. This study classifies two sub-categories of attributive blends termed right-headed attributive and left-headed attributive. In right-headed attributive, the second-word functions as head, and the first-word acts as a modifier. In contrast, the first-word features as head, and the second-word serves as a modifier in left-headed attributive. In the study, most compounds are right-headed attributive compounds. Attributive compounds are the most common in

compounding the new words; this is because of the relations of both words are sequential or chain to combine two words becomes one. In attributive compounds, most of them are faithful to the prosodic structure of the semantic head. This investigation provides a detailed result of the formation of compound words and other linguistic structures of the construction of new words.

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