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WORD-FORMATION PROCESSES OF MEDICAL LEXICAL ITEMS IN *THE JAKARTA POST'S*-ARTICLES

Afri Tamara Nurmadani
Teleperformance, Yogyakarta, Indonesia
correspondence: afrieta37@gmail.com
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Abstract
The understanding of medical lexical items needs to be improved in society to make people know and aware of their health issues in their daily life. This research focused on the morphology phenomenon, especially the word-formation process that happened in *The Jakarta Post*'s articles. This research aims to know the formation of medical lexical items that appear in the articles. The data was collected from *The Jakarta Post*'s articles, especially articles related to health topics. The data were classified into several types of word-formation based on the theory from Bauer (1983 & 2003), which supported by (Yule (2006). The researcher used a qualitative approach, specifically document analysis in analyzing the data. There are two questions in this research, which are (1) What word-formation processes of medical lexical items are involved in *The Jakarta Post* articles?, (2). How are the medical lexical items formed in *The Jakarta Post* articles?. Through this analysis, it was found eight types of word-formation which were involved in the articles related to health. It was found 165 lexical items in 11 articles. They are 10.9% for compounding, 47.3% for derivation, 3.0 % for blending, 7.3% for abbreviation and acronym, 12.1% for borrowing, 17.0% for inflection, 0,6% for back-formation, and 1.8% is clipping. The researcher hopes that it can help people to understand more about medical lexical items and the word-formation process.

Keywords: Morphology, medical lexical item, word-formation, *The Jakarta Post*

Introduction
Language is always interesting to be discussed. Many languages exist in this world; one of them is English, which is used worldwide to communicate among people. English language is commonly used as a second language and foreign-language in several countries. In several fields such as economics, laws, politics, and medical, English has several particular lexical items or terms which are very different from the lexical items that we regularly use in daily life. There are lexical items that might be known by some people, but sometimes they are also tricky because they have different meanings in another field which can be misleading and misunderstood

Generally, language has unique constructions where the top of the hierarchy is called a sentence, and the end of the hierarchy is called a morpheme. There is a study of forming word in linguistics, and it is called morphology, which deals with the internal structure of a word and its morphemes. It is an interesting study which will

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be helpful for everyone who learns English because it will help them understand more about the words and their formations.

In this era, online media grows rapidly because it is efficient, and it also may share information with everyone in a short period of time. People stars to leave the conventional way to share information such as by letter or other printed documents. They start doing everything online, which can be accessed by everyone and everywhere at any time. Nowadays, people pay more attention to health issues which is become one of the most discussed topics everywhere in online media, whether in blogs, newspapers, magazines, articles or even videos on YouTube.

One aspect which is very important in health issues is the medical lexical items. In society, understanding medical lexical items can help them understand their condition clearly when they have health issues. It is also important to be learned by medical practitioners, especially when they give a diagnosis for the patients. As a patient, it is important to know exactly several medical lexical items because sometimes doctors explain an emergency or critical situation using medical lexical items. The importance of the accuracy of medical lexical items also needed by medical practitioners to record any health issues of the patients. The research done by Agustine and Pratiwi (2017) for medical records in Bambanglipuro Public Health Center shows that 77.2% of medical terms are not opportunely. It should not have happened because medical practitioners have important roles, especially the doctors, the nurses, and also the medical records officer which is classifying and diagnosing the condition of the patients.

Medical lexical items also need to be learned by English Language Education Study Program (ELESP) students to improve their understanding of vocabulary in other fields. It can help them when they are working which is related to the medical field such as translation projects, teaching, transcribing, or even broader job related to health. Health becomes a prevalent issue which is always discussed in the newspaper and magazine worldwide. It is because people pay more attention to their health. One of a newspaper which always give tips and news related to health is *The Jakarta Post*.

The Jakarta Post is one of the Indonesian daily newspaper that uses English to deliver the news in its articles. *The Jakarta Post* can be read by everyone, both Indonesian and foreigner, because it uses English. *The Jakarta Post* is oftentimes read by all generations, the younger may read it in school because many teachers use *The Jakarta Post* as the media of teaching and learning. At the same time, the older may read it in institutions, offices, or anywhere else.

Morphology

Morphology comes from Greek which *morph-* means '*shape, form'* and *–logy/ology* means 'a study'. According to Bauer (2003, p.4), *morphology* is the study of a word and its structures. In linguistics, *morphology* refers to the branch of linguistics which deals with word and its internal structure, also the process of how they are formed (Arnoff and Fuderman, 2011). It means that *morphology* is the branch of linguistics that focuses on the study of word-form and its structure.

According to Katamba (1993, p.19), morphology is the study of the internal word structure. It means that morphology, which is a sub-branch of linguistics focuses on the study of words. It deals with the internal structure of word-form. At the same time, the basic unit that being analyzed in morphology is morpheme (Bauer, 1983, p.13). A morpheme is the smallest unit of language in word structures that has meaning. It can

be considered that morphology is the study of morphemes and their arrangements in forming words. While according to Basbell (2015) the interaction between morphology and phonology is called morphophonology. It means that morphophonology deals with the sound changes when the morphemes are combined to form words. There are four steps of the process of morphology according to Ba'dulu and Herman (2005) in their book. They are identifying morpheme, word-formation, morphophonology processes, and dictionary.

Morpheme

Bauer (2003); Plag (2003); and Katamba 1995) stated that morpheme is the smallest meaningful unit. Morpheme is also commonly defined as the smallest linguistic piece that has a grammatical function. It means that morpheme is the smallest unit in the word structure. A word may consist of a morpheme, such as *hand*, or a meaningful piece of a word, such as affixes-*ed* of *looked*, and it cannot be divided again into smaller meaningful parts (Arnoff and Fudeman, 2011, p.2). There is no smaller meaningful unit than morpheme.

Free morpheme

A Free morpheme is a morpheme that can stand by itself with meaning even without any additional affixes. According to Plag (2003, p.10), a morpheme that can occur in their own way is called free morpheme. A free morpheme can form a word by itself and it does not need another morpheme to have meaning. Examples of free morphemes are "walk, supply and treat". Those words have meaning even without any bound morpheme or affixes attached to it.

Bound morpheme

A bound morpheme is a morpheme that can only occur when it is attached to other morphemes (Plag, 2003:10). It is a morpheme that can be a conjunction and affixes. A bound morpheme cannot stand itself with meaning. It needs to be attached with a free morpheme in order to have meaning. The examples of bound morphemes are "pre-, -ist, -tion" in the word "pretest, internist, and isolation".

Root, Base, and Stem

According to Katamba (1993, p.41), "root is the irreducible core of a word, with absolutely nothing else attached to it". In comparison, Bauer (1983, p.20) stated that a root is a form that cannot be analyzed furthermore even in terms of derivational and inflectional morphology. It means that root is part of a word that becomes the main word before any affixes are added and it is word-form that still remains when all inflectional and derivational affixes have been removed. Root is always in present when it is a lexeme. For example, "*walking*" the root is "*walk*". In the other hand, root is not always individual. Plag (2003, p.10) stated that there is also a bound root that occurs only in other morphemes. Mostly English is derived from Latin terminology. The examples are, *approb-* in *approbate* and *simul-* in *simulant*.

Stem is part of a form that exists before grammatical or inflectional affixes have been added (Katamba, 1993, p.45). It means that a stem is a unit before the suffix is added to it. The example is *car* (root) becomes *cars* (stem). The suffix *-s* is added to the root *car* to form a plural car which is *cars* it is considered as stem.

A base is a word-form to which an affix can be added (Bauer, 1983, p.21). In many cases, all roots are base but not all of the bases are a root. The affixes which added in the base can be inflectional or derivational affixes. The example is "untouchable" the base can be "touch or touchable"

.

Lexical Item

According to Hartmann and Stork (1972, p.129), lexical item is "a unit of the vocabulary of language such as word, phrase or term as listed in a dictionary". It is supported by Bauer (2003, p.334), who stated that lexical item is any item listed in the lexicon, and it is not only ordinary lexeme but also included phrasal verbs and idioms. It may also define as a lexeme and word as mentioned before. Furthermore, some experts give definitions about *word* and one of them is Aitchison (1978, p.3), which stated that words are the minimum free form which is the smallest form that can occur by itself. It can be considered that a word is defined as the smallest part phrase that can stand by itself. It means that a word is the unit of language that has meaning and can stand by itself, the example is "book". While Richards (1985: 311) stated that a word is the smallest linguistic unit that might occur on its own in speech and writing. It is used in daily conversation to communicate with other people, both written and spoken.

History of Medical Lexical Item

Medical lexical item is a terminology used in a specific field by medical practitioners and health organizations. The lexical items were found by Old Greek which had started medical practice by their experience on Old Greek-philosophy. According to Banay (1948) stated that "approximately three of fourth of medical terminology comes from Greek". Greek medical practitioners had realized the importance of the scientific exact lexical items in the medical field which needed to be created, and they started leaving the traditional way. As time goes by, medical lexical items came to the Rome Empire. Davidona (2011) stated that "the reason for the superior position of Greek medical terminology over the Latin one lies in the fact that the first doctors in Rome were not the Romans, but Greeks coming from Greek centers of science such as Athens, Alexandria, and Asia Minor". The medical terminologies used in the Rome Empire were Greek in the medical field, and this development made the Rome Empire become the center of the development of medical terminology.

One of the Roman medical writers, Celsus rewrote and translated the medical book from Old Greek into Latin. He was known as one of the founders of Latin medical terminology. Due to the Latin lack of several terminologies, Celsus and other medical practitioners had to borrow the terms from Old Greek in order to complete the terminology (Bujalkova & Dzulganova, 2015). It is supported by Mareckova (2002) who stated that English medical lexical items mostly come from Latin. It is because the borrowing process from English to Greek is through Latin.

The Old-Greek and Latin become the founder of medical lexical items which are used until today. The medical terminology has divided into two parts which are anatomical (based on Latin) and clinical (based on Greek). According to *Terminologia Anatomica*. *International Anatomical Terminology* (1998) Anatomical terminology contains 5,800 Latin terms which is mean 4/5 of them are Latin and 1/5 are Greek. Clinical terminology can be considered as the terms that classify diseases, symptoms, diagnosis, and procedures. This term is not absolute because there are also Latin

clinical terms and Greek anatomical terms. Nowadays, many medical lexical items come to English after they are changed in Latin or Latinate from Greek. The example is the noun lexical items in Latin "*bronchus*" which from the term "*Bronchos*" in Greek.

The Principal of Forming Medical Lexical Item

It has been mentioned before that Greek and Latin are the main terms in English medical terminologies. Bekisheva et al. stated that sometimes the lexical motivation behind the Greek or Latin-originating term is confusing, and it requires to find out its etymology (in Povoroznyuk, 2015). The Greek terms came into the English language through Latin (Banay, 1948). It becomes the reason why most of English medical lexical items borrowed from Greek and Latin. The examples are "*thorax, gastr,* and *opthalm".* Those terms are directly borrowed from Greek. Dzuganova (2011) states that "one-term can be simple (underived) word, compounds or combination of derived and compound words". It means that medical terms can be formed by the combination of the derivation and compounding process.

English Medical lexical items are mostly formed by derivation which is usually derived terms from Greek and Latin. The example of derivation in the medical lexical item is *virology* which *viro* (root) from *virus* and *logy* (suffix). While compounding is also commonly happened in medical lexical items because basically before it derived into a term, it is a single word. The example of compounding in the medical lexical item is "*blood donor*" which are two words that compound together.

There are four main elements that build the medical lexical item they are; *word root, combining form, prefix,* and *suffix* (Gylys and Wedding, 2009, p.2). Word root is the main foundation of a medical lexical item. All medical terms were built with at least one root as it has discussed that the root used in the medical lexical item comes from Old-Greek and Latin. The example is *nephros* which the word root is *nephr* from Greek and the meaning is *'kidney*'.

Combining form is used to connect word root with a prefix, suffix, and other roots. Combining form '*o*' or '*i'* commonly is a vowel. It is used to connect word root or affixes which are consonant to create a better sound. There is no meaning in the combining form and it is only used to indicate the word root and the affixes for a learner and also makes the pronunciation not awkward. Cohen and DePetris (2014) drew the illustration of combining form in building medical terminology below.

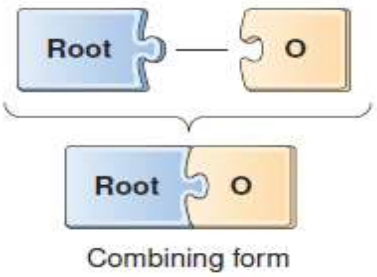


Figure 1: A root with combining vowel is called a combining form
Source: Medical Terminology: An Illustrated Guide 7th Edition

The combining form is not absolute. It can be used and not in the word. The combining form that connects word root and word root indicates that the word is

compound in which there are multiple roots in a word (Gylys and Wedding, 2009, p.14).

The example of combining form which indicates the compound word, is explained below.

Osteoarthritis
Oste (root) + *o* (combining form) + *asthr* (root) + *itis* (suffix)
(bone) + o + (joint) + inflammation

It can be seen that the root *oste* which means bone and *asthr* which means joint are the main roots in this terminology. Both of the roots have their own meanings and are connected by the combining form. The compounding process creates a new lexeme which has a different meaning than before. The meaning after the word being combined is inflammation of bone and joint.

There are affixes in the medical lexical items that have the same roles as English affixes. A prefix is added before the word root and the suffix is attached to the end of the word. Suffix in medical usually related to disease, procedure, treatment, and diagnosis (Gylys and Wedding, 2009, p.3). While prefix mostly indicates number, time, position, direction, and negation (Gylys and Wedding, 2009, p.4). It is supported by Cohen and DePetris (2014) that drew the illustration of building medical terminology using suffix and combination form below.

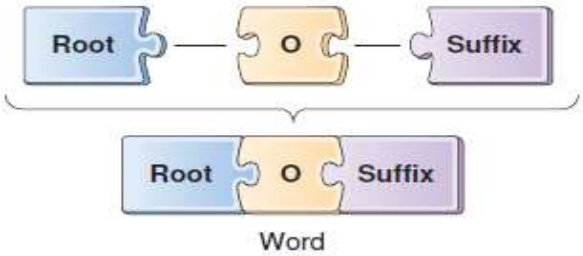


Figure 2: Word which formed from word root, combining form, and suffix
Source: Medical Terminology: An Illustrated Guide 7th Edition

The example of a medical lexical item with the suffix is explained below.

Rhinoplasty
Rhin (root) + *o* (comb. Form) + *plasty* (suffix)
Nose + o + surgical repair

From the example above, we can see that *rhin* is the main root which is added by a suffix *-plasty*. The combination of the root and the suffix creates a new meaning in the medical terminology which is surgical reparation for the nose.

The example of a medical lexical item with prefix explained below

Dystocia
Dys (prefix) + *tocia* (root)
(Difficult) + (childbirth)

From the example above, we can see that *dys-* is the prefix of the lexical item which is added to the root *tocia.* The combination of the prefix and the root creates a new meaning in the medical dictionary which means difficult childbirth.

Medical terminology can be formed from the combination of word root prefix and suffix. Cohen and DePetris (2014) drew the illustration of forming medical terminology using word root, prefix, and suffix below.

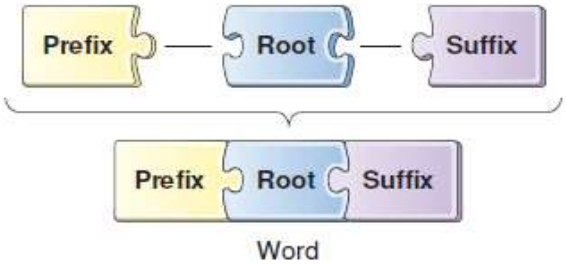


Figure 3: Medical terminology which formed from word root, prefix, and suffix
Source: Medical Terminology: An Illustrated Guide 7th Edition

The example of medical lexical item with prefix and suffix.

Circumrenal
Circum (prefix) + *ren* (root) + al (suffix)
(around) + (kidney) + pertaining to

From the example above, we can see that the lexical item *circumrenal* consists of prefix, root, and suffix. The combination of *circum-, ren* and *–al* creates a new lexeme which has a different meaning. The term *ren* is from Latin, which means kidney. The meaning of the word after all the elements are combined becomes pertaining to around the kidney.

Word-formation

As the term of 'word-formation', it is a study that focuses on the formation of words (Plag, 2003, p.9). It can be considered that word-formation itself is dealing with the process of forming words. While according to Yule (2006) word-formation is a process of the constant evolution of new lexical items in shaping a language needed by the users. The structure of words, which are stem, root, base, and affix, can be analyzed through morphology (Azis and Rosa, 2018). The process of analyzing word structure is considered as a morphological process or word-formation process. In the other hand, Poštolkova (in Dzuganova 2011) stated that:

> Word-formation of terminology divided into four ways, which is 1. Morphological by means of derivation, compounding, abbreviation; 2. Syntactic by forming collocations and multi-word phrases and 3. Semantic by narrowing (specifying) the meaning of common words; by metaphoric and metonymic transfer of the previous meaning; *4*. Borrowing words from other languages.

It can be considered that lexical item has been taken to English from several languages with many processes and it keeps increasing until now. There are more lexeme and lexical items found every day, whether it will be formal or informal..

Yule (2006) and Bauer (2003) stated that there are ten types of word-formation. They are reduplication, compounding, derivation, inflection, borrowing, clipping, blending, backformation, acronym, coinage. Those word-formations might create a new lexeme which completes the lack of terminology. Lexeme or word will always evaluate time by time. It is proven by increasing the terminology in the dictionary and it can also be seen that the dictionary is always updated with new words and lexeme.

Compounding

According to Bauer (2003, p.40), compounding is a process of creating a new lexeme by adjoining two or more words. It is supported by Yule (2006) stated that compounding is a process of combining two words to create a new word. It means that compounding happens when two or more words are joining together to create a new word with a different meaning. While according to O'Grady and Guzman (1996, p.151) the combination of lexical categories such as nouns, adjectives, verbs, or prepositions can create a new word. The examples are "*fast-food, sunset, headphone, sunscreen, and wastebasket*". The word *fast-food* comes from the combination of the word 'fast' and 'food'.

Derivation

According to Yule (1996: p 57), derivation is the most common word-formation, and it is commonly changing the word classes. This process is about adding morpheme to the stem and root to create a new word that is changing the meaning of the previous word. The morpheme which added, is part of affixes. It can be prefix or suffix. Prefix is affixation that added to the beginning of the root while suffixes attached to the ends of the root. The examples of derivation are "*meaningful, untouchable, happiness, joyful and careless*". From the example above, we can see that the word *untouchable* has root *touch* with prefix *un*-and suffix *–able*.

Inflection

Inflection happened when the affixes were added to the base, and it did not change the part of speech (Bauer, 2003, p.14). Affixes which are added to the root are commonly a suffix that did not change the word class so that it can be considered as inflection. At the same time, Hatch & Brown (1995, p.285) stated that inflection is a word-formation process by adding affixes to create a new form without changing the word class or meaning. It means affixes produced a new word-form but did not change the meaning. The example is *he **writes** a poem* the suffix *–s* did not change the word class and the meaning is still the same.

Blending

Blending is a process of word-formation where two words with meaning picked up into one word (Bauer, 2003, p.46). It can be considered that the two words can be joined together in order to create a new word. While according to Hatch and Brown (1995, p.211) blending is a way of forming a word by joining the non-morphemic parts of two words that have existed. It means that the word that is used to blend is lexeme which already has meaning, and it has been listed in the dictionary. The examples of blending are "brunch, toytoons, and motel". *Brunch* is breakfast and lunch, toytoons is toys and cartoon, while motel is motor and hotel. Those are the examples of blending two words by taking particular parts of the two words.

Reduplication

Reduplication is a word-formation process that uses some parts of the base more than once in a word (Bauer, 2003, p.31). It means that reduplication happened when part of the word is used more than once. According to Giyatmi et al. (2004), it is from reduplicate which means repeating the whole or partial words, the examples are very-very and hanky-panky. Reduplication also might use the entire word. The part of the word which is doubled can be affixed too. The example is *"anak-anak"* which in Indonesian language describing that there are many kids.

Abbreviation and Acronym

Abbreviation commonly formed by taking an initial latter of multi-word in order to create a new word (Plag, 2003, p.126). According to Bauer (1983, p.237), acronym is a word-formation process that takes initial letters of words such as in title or phrases to create a new term. Moehkardi (2016) also stated that acronym might consist of initial letters, non-initial letters, and mixture of initial and non-initial latters. Acronyms are words formed by the word-formation process in which the initial letter is pronounced as a word (Mustafa, Kandasamy, and Yasin, 2015). It means that the acronym required the new words from the initial letters or non-initial letters to be pronounced as words, not as a series of words. The examples are "*PIN*" which is personal identification number.

Borrowing

Borrowing is the most common word-formation process in English which supported by Katamba (1993), who stated that English has borrowed loanwords from a great number of languages. According to Yule (1995, p.55), borrowing is a part of word-formation that takes over a word from other languages. Multazim & Nurdin (2019) stated that borrowing is a word-formation process that is adopting word foreign language. It means that the lexical items can be adopted from another language. Katamba (1993) also stated that "it is possible to add to the lexicon of the language indefinitely by pillaging the vocabulary of other languages". The examples are "*port* which comes from *portus* 'harbor' in Latin, *artery* which comes from *arteri* in Greek.

Coinage

According to Yule (2006:53), coinage is a new word that has not existed before. Usually, it comes from the name of a commercial product and becomes a general product. While according to O'Grady and Guzman (1996, p.160), coinage or called word manufacture is a new word created from names or brands. It is common in cases where the industry needs a name for a product. The examples of coinage are "Honda and Odol". Indonesians commonly coinage the toothpaste as Odol and Honda as motorcycle while those words are the name of brands.

Back-formation

Backformation is one of the word-formations which commonly happened in every field. According to Bauer (2003, p.39) "where the element subtracted is (or looks like) a morph with an independent existence elsewhere in the language, and especially where the process is derivational one, we talk of backformation". It means that back-formation might be indicated when the morph is independent and usually becomes part

of a derivational stand alone with meaning. Examples of backformations are "donate and babysit". Those are from words donation and babysitting.

Clipping

Clipping is a process of shortening a word without changing the meaning and the part of speech or the word class (Bauer, 2003, p.40). While Yule (2016:56) stated that the reduction of words that more obvious than blending in the processed is called clipping. It happens when a word that has more than one syllable is reduced into one syllable. While according to O'Grady & Guzman (1995, p.157), clipping is the process that shortens or takes away one or more syllables of a word. The examples of clipping are "phone, plane, and cab.". They are clipped from "handphone, airplane, and cabinet". Sometimes people also clip names such as *Al, El, Mike, Jo, and Dave.*

The Jakarta Post

The Jakarta Post is an Indonesian daily newspaper that uses English to deliver their news. This newspaper is owned by PT Niskala Media Tenggara and located in Jakarta. *The Jakarta Post* also has online edition news on their website that can be freely accessed by everyone. It also has a weekend magazine supplement called J+. In 2006, the Reporters Union of Indonesia recognized *The Jakarta Post* as one of the Indonesian newspapers which became the best newspaper because it followed journalism ethics and standards.

Method

This research belongs to qualitative research because the data is in the form of words instead of numeric or measurement. It is done to understand social phenomena, social being used in a broad sense (Wiersma, 1991, p. 13). Therefore, the data of this research belong to the qualitative research since they were interpreted using description, and they were gathered and analyzed by using document or content analysis technique.

Corbin and Strauss stated that "document analysis is a systematical procedure for reviewing or evaluating documents both printed and electronic (computer-based and Internet-transmitted) material" (in Bowen, 2009). Same to other analytical methods, the data in the document analysis should be examined and interpreted to gain understanding and define the elicit meaning of the data.

Downe-Wambolt (1992) states that "content analysis is a research method that provides a systematic and objectives means to make a valid inference from verbal, visual, or written data in order to describe and qualify specific phenomena". By using content analysis the researcher then looked for the medical lexical items that appeared in *The Jakarta Post*'s articles. The researcher then used 11 articles from 20 February – 1 March 2020. The researcher decided to take the 11 articles from 20 February to 1 March because it was the period of the outbreak of a global pandemic coronavirus worldwide.The researcher then made systematic tables to make the data more organized and understandable.

There are seven dictionaries used in this research. There are two medical dictionaries used in this research; they are Dictionary of Medical Terms 4th edition and Dorland's Illustrated Medical Dictionary 32nd edition. These dictionaries needed to determine the medical lexical items. The other dictionaries that used in this research are English Oxford dictionary (in https://www.oed.com/), Longman Dictionary of

Contemporary English (in https://www.ldoceonline.com/), Etymology Dictionary (in https://www.etymonline.com/). Cambridge Dictionary (in https://dictionary.cambridge.org/), and Merriam-webster Dictionary (in https://www.merriam-webster.com/). Those dictionary used in this research to determine and analyze the data. They are used to compare the lexical items or the words to make sure that the lexical items are valid and listed in the dictionaries. Besides that, the researcher also uses the National Library of Medicine to determine the drug and the chemical name of it. It can be accessed at https://www.nlm.nih.gov/.

Findings and Discussion

Types of word-formation that occurred in *The Jakarta Post*'s health articles

There are ten types of word-formation, according to Bauer (2003) and Yule (2006) that become the foundation of this study. However, from the data found in *The Jakarta Post*'s articles, there are nine types of word-formation that occurred in the articles as seen in the table below.

Table 1: The percentage of word-formation found in *The Jakarta Post*'s articles

No.	Types of Word-formation	Frequencies	The Percentage of Each Type
1.	Compounding	18	10.9%
2.	Derivation	78	47.3%
3.	Blending	5	3.0%
4.	Acronym	12	7.3%
5.	Borrowing	20	12.1%
6.	Inflection	28	17.0%
7.	Back-formation	1	0.6%
8.	Clipping	3	1.8%
	Total	165	100%

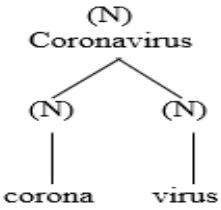
The table above shows the types of word-formation process of medical lexical items which is involved in *The Jakarta Post* articles. There are 148 lexical items with the classification of the word-formation process. Those words or lexical items were taken from 11 articles with the tag of health in *The Jakarta Post*. There are eight types of word-formation involved in the articles. They are compound, derivation, blending, acronym, borrowing, inflection, back-formation, and clipping. The highest frequency of word-formation that occurred is derivation with 78 medical lexical items and 53,2% for the percentage. Therefore, the most dominant type word-formation of medical lexical items found in *The Jakarta Post* articles is derivation.

Discussion

Based on the data above, the researcher will discuss several types of word-formation of the lexical items. The lexical items were chosen by the researcher based on the lexical items that uncommonly occurred in daily life. There are 20 lexcal items to be discussed. It is based on three topics that occurred on 20 February to 1 March 2020. The process of analyzing the data is divided into four steps according to morphology structural processes which are: identifying morpheme, word-formation, morphophonology process, and dictionary.

Compounding

CASE 1: Coronavirus,



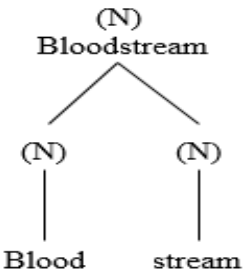
The compounding of the words coronavirus: corona + virus

A word can have more than one morpheme, the word *coronavirus* consists of two morphemes. They are *corona* and *virus*. These morphemes are free morphemes which can occur by themselves and have a meaning as words. The morphemes are classified as a noun. The word corona is borrowed from Latin language which means *crown* or *garland*. The word *corona* were borrowed from Latin which means 'the body structure which shaped like a crown'. In the other hand *virus* is borrowed from Latin language which means *poison*.

This compounding process happens when there are two free morphemes. In this case, *corona* and *virus* are joined together and created a new lexeme *coronavirus*. The process is considered as a process of compounding. In this case, a noun is combined with a noun to create a new lexeme. When the noun *corona* and *virus* combined into *coronavirus*, it is still classified as a noun.

There is no process of morphophonology happened in this word development. The process does not affect the pronunciation of the new lexeme when it is joined together. It is still the same as the pronunciation of *corona* and *virus* when they are separated. Furthermore, the word *coronavirus* is already listed in the dictionary as a lexeme *and* has meaning in Dorland's medical dictionary which is 'a genus of viruses of the family Coronaviridae that cause respiratory disease and possibly gastroenteritis in humans, and hepatitis, gastroenteritis, encephalitis, and respiratory disease in other animals. In newborn calves and lambs, it causes neonatal diarrhea'.

CASE 2: Bloodstream,



The compounding of the words bloodstream: blood + stream

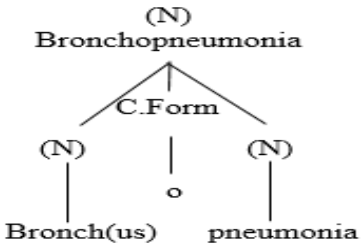
The word *bloodstream* can be considered having two morphemes. They are *blood* and *stream.* Those morphemes are categorized as a noun. Each morpheme is considered as free morpheme that can stand alone and have meaning by itself. It is supported by the fact that the word *blood* and *stream* have been listed in the dictionary as a lexeme.

The word-formation process happens when two free morphemes are joined together to create a new word. In this case, the word *blood* and *stream* are combined together and generate a new lexeme that has meaning. This process is considered as a compounding process. This case shows that the noun is combined with a noun. The compounding process of *blood* and stream which becomes *bloodstream* does not change the part of speech of it. The new lexeme is still classified as a noun.

There is no process of morphophonology that happens in this new lexeme. The two morphemes do not affect the development of the word. It is still pronounced the same as the separated word of *blood* and *stream*. Furthermore, the word *bloodstream* has been listed in the dictionary as "the flow of blood around the body.". The specific meaning in the medical dictionary is "the blood flowing round the body.".

Derivation

CASE 3: Bronchopneumonia



The derivation process of the word bronchopneumonia:

bronch(us) + o + pneumonia

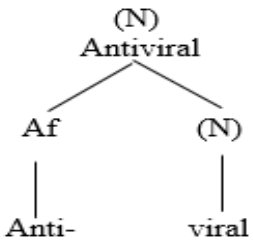
The word *bronchopneumonia* has two morphemes. It comes from Greek and Latin language, where the medical lexical item was created. The morphemes are *bronchus*, and *pneumonia* which are free morphemes that can stand alone without any additional affixes. It was supported by Sanders (2012) in his dictionary, who considers that *bronchopneumonia* has two morphemes. Based on its etymology in etymonline.com *bronch* comes from the word *bronkhos* (Greek) and *bronchus* (Latin) which means *throat* in English. While *pneumonia* in Latin was borrowed from Greek *pneumon* which means *lung* and attached to the suffix *–ia* which was then used in Greek as *pneumonia* or lung disease. Then it is borrowed until now as *pneumonia*. The morphemes is combined together into the word *bronchopneumonia*.

The process of word-formation that can be seen in this lexical item is compounding. The process occurs when the prefix *bronch-* and *-pneumonia* are combined together. It generated a new different meaning when those roots are separated. In this case, the noun of *bronch(us)* and *pneumonia* are combined to create a new lexeme. This process is categorized as derivation, and the lexeme is still classified as a noun.

There is a morphological process that happened in this lexical item. The words are pronounced differently when they are separated because when it is compound, there no is part of the word which is removed. Furthermore, the lexical item *bronchopneumonia* has been listed in the dictionary with the meaning "pneumonia involving many relatively small areas of lung tissues. Specifically, in Dorland's Medical Dictionary, it means 'an inflammation of the lungs that begins in the terminal

bronchioles, which become clogged with a mucopurulent exudate forming consolidated patches in adjacent lobules.'.

CASE 4: Antiviral



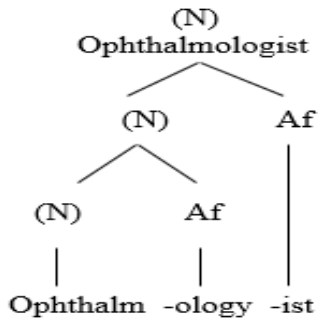
The derivation process of the words antiviral: anti+viral

It can be seen that the word *antiviral* has two morphemes. They are *anti*-and *viral*. The prefix *anti*- is considered as a bound morpheme that cannot stand alone with a meaning. While the morpheme *viral i*s considered as a free morpheme that can stand alone even without prefix *anti*-. The morpheme of *anti*- and *viral* cannot be divided into smaller unit any further. It confirms that the word has two morphemes.

This word-formation occurs when the prefix is added to a root. In this case, the prefix *anti*- is added to the root of the word which is *viral*. The process of adding a prefix to the root generates a new word with a meaning. The meaning will be different when the prefix and the root are separated. However, the process of this word-formation is called derivation. In this case, the affix (prefix) is combined with the noun. It creates a new lexeme *antiviral* which classified as a noun.

There is no process of morphophonology seen in this word-formation. The two morphemes are not affected by the development of the word, so it is still pronounced the same as the word when they are separated. The word *antiviral* has been listed in the dictionary with the meaning "a treatment which used to cure an infection or disease caused by a virus." and in the medical dictionary is almost similar which is "a drug or treatment which stops or reduce the damage caused by a virus".

CASE 5: Ophthalmologist



The derivation process of the words ophthalmologist: ophthalmology + ist

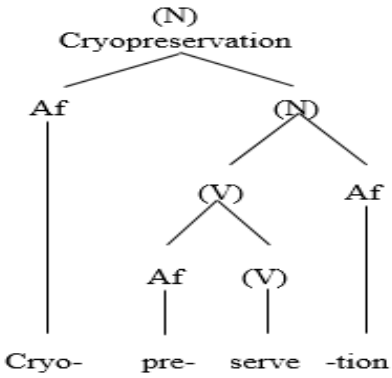
The word *ophthalmologist* consists of two morphemes. A word may consist of more than one morpheme. In this case, the morphemes are *ophthalmology*, and *–ist*. If we take a look closer into the etymology in etymonline.com, *ophthalm* from Greek language which means 'eye' is a word root in medical terminology. While *–ology* means 'a study' is a suffix. *Ophthalmology* has its own meaning which is 'a study of

eye and its disease'. In the word *ophthalmology* it can be seen there is a word development from 'noun (*ophthalm*) + (*ology*) suffix' which then becomes noun *ophthalmology*. In the other hand suffix *–ist* is a bound morpheme. It cannot stand alone with meaning and it should be attached to a root.

The process ~~h~~happens when a suffix is attached to a root and created a new meaning. The suffix *–ist* added to a root *ophthalmology* generated a new meaning. The meaning will be different when the suffix and the root are separated. This process is called derivation.

There is no morphophonology process that happens in the word-formation. The way to pronounce the new lexeme is the same when the words are separated or joined. The pronunciation of the morpheme is not affected by the combination of the word. The word *ophthalmologist* has been listed in the dictionary with the meaning "a doctor who specializes in the study of the eye and its disease.".

CASE 6: Cryopreservation



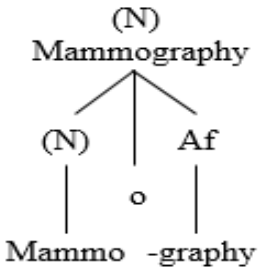
The derivational process of the word cryopreservation: cryo + pre + serve + tion

The word *cryopreservation* consists of four free and bound morphemes as the smallest meaningful unit. They are *cryo-*, *pre-*, *serve*, and *–tion*. There are double prefixes in the word which is *cryo-* and *pre-*. If we check it closer to the etymology in etymonline.com, the prefix *cryo-* comes from Greek language which means 'cold' and the other prefix is *pre-*. They are bound morphemes that cannot stand alone with meaning, and they need to be added to a root. While *serve* is a free morpheme that can stand alone with a meaning even there are no affixes added to it. The suffix of the word is *–tion* which is a bound morpheme that cannot stand alone with a meaning. When the prefix *–pre* is joined to the root *serve*, it creates a new word *preserve* which classified as a verb, and it means 'to save something or someone from being harmed or destroyed' in Longman Dictionary. Then it is added a suffix –tion. It becomes *preservation* which is mean 'the act of keeping something the same or of preventing it from being damaged'. It is formed by a noun that added a prefix and suffix.

The word-formation process happened when the affixes were added to the root. In this case the prefix *cryo-* and *pre-* are added to the root *serve-* and the suffix *–tion* is attached to the root. The word-formation process generates a new meaning. There is no process of morphophonology which happens in this case. The pronunciation remins the same as the separated words. Moreover, the lexical item has been listed in the

dictionary with the meaning "preservation (as of cell) by subjection to extremely low temperature".

CASE 7: Mammography,



The derivation process of the words mammography: mamm(a) + o + graphy

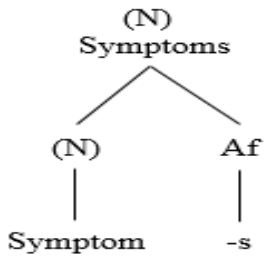
The word *mammography* can be considered as having two morphemes. They are free and bound morphemes. A word may consist of more than one morpheme. In this case, the morphemes are *mammo-*, *–graphy*. The word *mammo-* is from Latin *mamma* which means *breast* which is then added combination form 'o' to connect to the suffix. The morpheme *–graphy* is considered as a bound morpheme that cannot stand alone without any root or free morpheme. The morpheme *–graphy* was borrowed from Greek through Latin and France. It has a meaning 'write' in etymonline.com. There is a word development that can be seen in the term. It is a noun which is added a suffix.

The word-formation process that can be seen in the word *mammography* where the suffix is attached to a root and it changes the meaning is called derivation. In this case the suffix is *–graphy* based on its etymology and the word root is *mammo-* which comes from *mamma* in Greek and Latin. The process of the word-formation generates a new meaning or a lexeme.

The morphophonological process that happened in this word-formation can be found when the word was joined together. The way to pronounce the new lexeme is different when they are separated. Furthermore, the word *mammography* has been listed in the Dorland's Medical Dictionary with the meaning 'radiography of the mammary gland'.

Inflection

CASE 8: Symptoms,



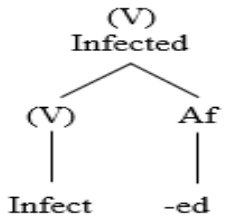
The inflectional process of the words symptoms: symptom + -s

It can be seen that the lexical item *symptoms* has two morphemes. They are free and bound morpheme. The morphemes are *symptoms* and *–s*. Free morpheme is a morpheme that can stand alone with meaning even without any affixes added to it, and

bound morpheme cannot stand alone without free morpheme. In this case, based on Longman Dictionary in www.idoceonline.com the lexeme *symptom* is borrowed from Latin *Symptoma* which also from Greek with a meaning 'something that happened, symptom'. In the other hand suffix *–s* is added to the root symptom, and it becomes plural which means more than one. The process of word-formation does not change the word class, *symptoms* is still a noun even when it is added a suffix. The word-formation process where a suffix is added to a root and did not change the word class is called inflection.

There is a morphonological process that happened in the lexical item. The pronunciation is different when the morphemes are separated. Furthermore, the lexical item *symptom* has been listed in the Dictionary of Medical Terms with the meaning 'a change in the way body works or a change in body's appearance, which shows that a disease or disorder in present and which the person is aware of'.

CASE 8: Infected,

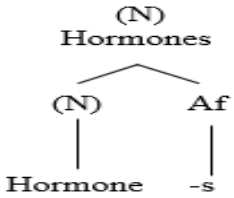


The inflectional process of the words infected: infect + ed

The lexical item infected can be considered as having two morphemes. They are free and bound morphemes. The morphemes are *infect* and *–ed*. *Infect* is a free morpheme that can stand alone without any additional affixes. According to Longman Dictionary in www.idoceonline,com *infect* is from Latin in past participle of *inficere* which means 'to dip in, to stain'. Then it comes to English with the meaning 'to contaminate someone or something with microorganism that cause disease or toxins' in Dictionary of Medical Terms fourth edition. The suffix *–ed* in the lexical item is a past participle which indicates that the lexical item is a verb.

The process of adding a suffix to a root and does not change the meaning is called as inflection. In this case, the suffix *–ed* is added to the root *infect* which then it does not create a new lexeme *infected*. There is a morphophonological in this word-formation. It is because the word is pronounced differently when they are separated. Furthermore, the lexical item has been listed in the Merriam-Webster Dictionary in www.merriam-webster.com with a meaning 'having an infection **:** contaminated with an infective agent (such as a bacterium or virus)'.

CASE 8: hormones



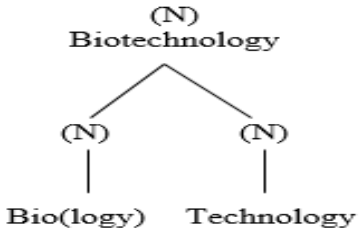
The inflectional process of the words hormones: hormone+ -s

In the lexical item *hormones* can be seen two morphemes that are free and bound morpheme. The morphemes are *hormone* and *–s*. *Hormone* is borrowed from Greek *hormone* which means 'to cause, to move around' in Longman Dictionary on www.idoceonline.com. Then it is added a suffix *–s* which indicated a plural noun.

In this case, where a suffix is added to a root and create a new root which does not change the word class is called inflection. The suffix *–s* is added to the root *hormone* which becomes *hormones.* There is a morphophonological process that happened in this word-formation. The pronunciation will be different when they are separated because there is addition (s) sound in the new word. Furthermore, the lexical item has been listed in the Dictionary of Medical Terms fourth edition with a meaning 'a substance which is produced by one part of the body, especially the endocrine glands and is carried to another part of the body by the bloodstream where it has particular effects or functons'.

Blending

CASE 8: Biotechnology

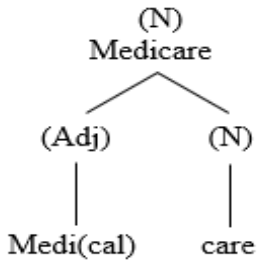


The blending process of the words biotechnology: Bio(logy) + technology

The term *biotechnology* can be considered as having two morphemes. They are *biology* and *technology*. They are free morphemes that can stand by themselves to have a meaning. The lexeme can be found in the dictionary. In this case, the word *bio* was taken from lexeme *biology* combined with the word *technology*. The process of joining two words by taking the beginning or the end of the words is called the blending process. In this case, the word *biology* is joined to the word *technology* by taking the beginning of the word *biology*. The word development can be seen when a noun blends to another noun to create a new word. The word *biotechnology* is classified as a noun.

There is no process of morphophonology in the development of the word. The pronunciation will be different on the word *bio*, and it will be the same as when the word as a free morpheme that can stand alone with the meaning. Furthermore, the word biotechnology has been listed in the dictionary which the meaning is "the use of living things, especially cells and bacteria, in industrial processes.".

CASE 9: Medicare



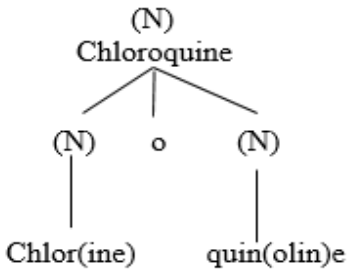
The blending process of the words medicare: medi(cal) + care

The word *medicare* consists of two morphemes joined together. They are free morphemes that can stand alone without affixes attached to them. The word *medi*-is from *medical* that was taken its part to blend with another word. While the word *care* is free morpheme that is completely taken to blend with another word. Moreover, the words have been listed in the dictionary as a lexeme. In Cambridge and Merriam-Webster dictionary, *medical* means 'the treatment of illness and injuries and *care* means 'a disquieted state of mixed uncertainty, apprehension, and responsibility. It means that those words stand alone with meaning.

The process of word-formation that can be seen here is blending because the word is made up from two words into one word by taking a particular part of the words. In this case the word *medical* is taken its beginning part of the word which is *medi*- and made up together with the word *care*. This process generates a new lexeme, and this word-formation process is called blending. The word development that can be seen in *medicare* is 'adjective +noun' then creates a new lexeme which classified as a noun.

The development of the word is affected to the morphophonology in words. There is a different way to pronounce the word because there are some parts that are removed. It will be different when those words are separated. Furthermore, the word *medicare* has been listed in the Dorland's Medical Dictionary with the meaning 'program administered by the Social Security Administration which provides medical care for the aged'.

CASE 10: Chloroquine,



The blending process of the words chloroquine: chlor(ine) + o + quin(olin)e

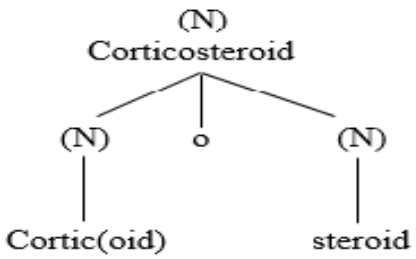
The word *cholroquine* can be considered as having two morphemes. They are *chlorine* and *quinoline* which are connected by combining form 'o' in order to create the words. The two morphemes are considered as free morpheme. It is combined from the chemical name of a drugs. Based on National Library of Medicine, the morpheme *chlor*- comes from the word *chlorine* which is a chemical element. While a morpheme

quin(e) is from the word *quinoline* which is also a chemical element. While based on its etymology in etymonline.com, *khloros* (Greek) means 'pale green' which is a color, and it was coined to chlorine by a British chemist, and it was known as a name of chemical element nowadays.

The word-formation process where two words are combined by taking part of the word and attached to another part of a word is called blending. In this case, the lexical item *chloroquine* took the beginning part of *chlorine* which is *chlor-* and took the beginning part of *quinoline* which is –quin(e). Those parts were combined together with a combining form 'o'. This process of word-formation is called blending.

The word development of the word chloroquine, where a noun is combined with a noun creates a new lexeme that classified as a noun. There is a morphophonological process that happened in the lexical item. The pronunciation is different when the words were separated because the words are combined together and there are several missing parts. Furthermore, the lexical item *chloroquine* has been listed in the Dorland's medical dictionary which the meaning is 'a 4-aminoquinoline compound with antiinflammatory and antiprotozoal properties, used for the suppression and treatment of malaria, for the treatment of giardiasis and extra intestinal amebiasis, for suppression of lupus erythematosus, and as an anti-inflammatory in the treatment of rheumatoid arthritis; administered orally'.

CASE 11: Corticosteroid,



The blending process of the words corticosteroid: cortic(oid) + o + steroid

The word *corticosteroid* can be considered as having two morphemes. They are *cortico*= which comes from Greek *corticoid* and the word *steroid* which also comes from Greek. Those words are chemical elements which are commonly used as a drug. They are free morphemes that can stand alone, but when they are blended, they become a bound root which was mentioned by Plag (2003) before.

The word-formation process, when two words are combined together into one word and create new meaning is considered as blending. In this case the word-formation that occurred is when *corticoid* and *steroid* are blended together and create a new word. The meaning of the new word form is different from when it was separated. The word development can be seen when a noun blend with a noun to create a new lexeme. The new lexeme is considered as a noun.

There is a morphophonological process that happened in the development of the word. It is pronounced differently from when the words are separated because there are other parts that being removed. Furthermore, the lexical item has been listed in the Dorland's Medical Dictionary as 'any of the 21-carbon steroids elaborated by the adrenal cortex (excluding the sex hormones of adrenal origin) in response to corticotropin (ACTH) released by the pituitary gland or to angiotensin II'.

Abbreviation and Acronym

CASE 12: WHO,

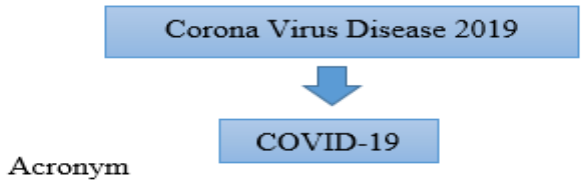


The acronym of word-formation process of the lexical item

The word *WHO* can be seen having a free morpheme. The morpheme is *WHO* itself. The word *WHO* can stand alone without any additional affixes. *WHO* stands for *World Health Organization* which was taken the initial letter of the word to create a new word The word-formation process where the ~~in~~ initial letter of the words were taken to create a new word is a word-formation process which called abbreviation and acronym. In this process the word-formation of *WHO* is considered as an abbreviation. It is because the word is pronounced as a series of letters. If it is pronounced as a word, then the word *WHO* will be considered as an acronym.

The word-formation process affected to the morphophonological process because the word was pronounced differently. Furthermore, the word has been listed in the dictionary.

CASE 13: COVID-19,

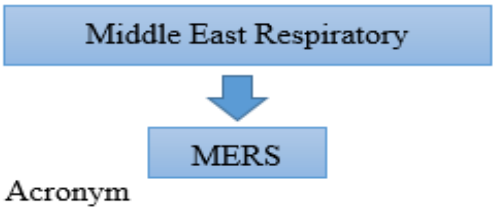


The acronym of word-formation process of the lexical item

The word-formation process that can be seen in the word can be considered having a single morpheme, which is *COVID-19*. A word-formation process where the initial letter and part of every words was taken to create a new lexeme is considered as abbreviation and acronym. As it has been mentioned before, the difference between abbreviation and acronym is the way to pronounce the word. In this case, where the lexeme is pronounced as a word instead of series of letters it will be considered as acronym. *COVID-19* stands for *Corona Virus Disease 2019*.

There is a morphophonological process that occurred in the word-formation process. The new word is pronounced as a set of words instead of a series of letters. This new word has been listed in several dictionaries such as in Cambridge dictionary (dictionary.cambridge.org) with a meaning 'an infectious disease caused by a coronavirus (= a type of virus), that usually causes fever, tiredness, and a cough, and can also cause breathing problems'.

CASE 14: MERS,

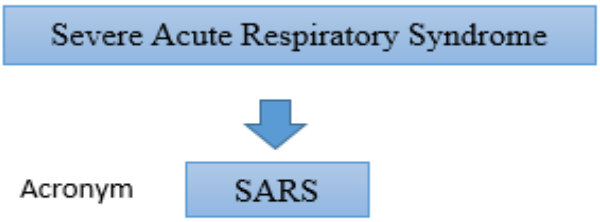


The acronym of word-formation process of the lexical item

The word-formation process in the lexical item *MERS* can be considered having a single free morpheme which is *MERS* itself. The word-formation process where the initial latter of every words were taken to create a new word is considered as abbreviation and acronym. As it has been mentioned above the difference of abbreviation and acronym is the way to pronounce the initial letter of the word. The initial letter of words are pronounced as a word instead of a series of letters is considered an acronym. In this case, the *Middle East Respiratory Syndrome* was taken its initial to create a new word, and it is pronounced as a word, not a series of letters. This word-formation process is called an acronym.

There is a morphophonological process that occurred in the word-formation process. The new word is pronounced as a set of words. Furthermore, the word *MERS* has been listed in the Merriam Webster dictionary with the meaning of ' a serious viral respiratory illness that is marked by fever, cough, and shortness of breath and that may often progress to severe pneumonia with acute respiratory distress syndrome and organ failure'.

DATA 15: SARS,



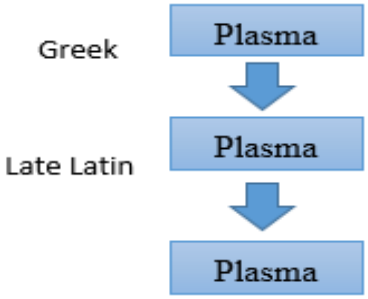
The acronym of word-formation process of the lexical item

The word *SARS* can be considered as having one free morpheme which is *SARS* itself. It can stand alone without any additional affixes. The word *SARS* is from *Severe Acute Respiratory Syndrome*. The word-formation process, where the initial letter of the words was taken to create a new word, is defined as abbreviation and acronym. The difference between them is how to pronounce the word. Abbreviation requires reading the word as a series of letters while the acronym is read and pronounced as a word. In this case, the word *SARS* is pronounced as a word not a series of letters. It can be considered that the word *SARS* is an acronym from *Severe Acute Respiratory Syndrome.*

There is a morphophonological process in the word development of the word-formation process. The initial letters of each word are taken to create a new word and it affected how it is pronounced. Furthermore, the word *SARS* has been listed in the Merriam Webster dictionary as 'a severe respiratory illness that is caused by cornonavirus'.

Borrowing

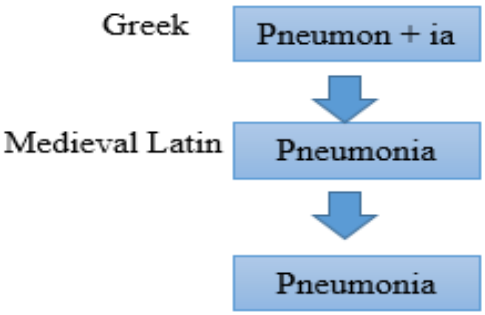
DATA 16: Plasma,



The borrowing process of the lexical item

The word *plasma* consists of a free morpheme that can stand itself. The morpheme is *plasma* itself. It does not need any affixes to have meaning. The word *plasma* comes from Greek lexical items and Late Latin *plasma* which means *mold* or *shaped* as it is listed in the etymonline.com. The process of this word-formation which was taken over a word from other languages, is called the borrowing process. There is no morphophonological process that happened in the word. It is pronounced the same as the Latin. The word has been listed in the dictionary which is "the pale yellow liquid that forms 55% of human blood and contains the blood cells".

DATA 17: Pneumonia,

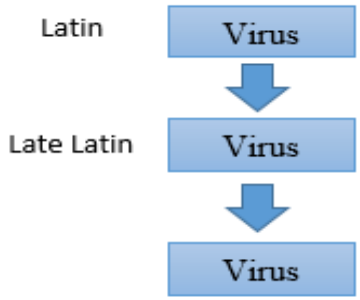


The borrowing process of the lexical item

The word *pneumonia* consists of a morpheme. It is a free morpheme that can stand alone with a meaning. The morpheme does not need any affixes to have meaning. Based on www.etymonline.com, *pneumonia* comes from Greek terms *pneumon* which means 'lung' attached to the suffix *–ia*. Then it is borrowed by Latin language into *pneumonia* which means 'lung disease or inflammation of the lung" and used in

English and Indonesia to describe the name of a disease. The word *pneumonia* is used in the medical lexical item until now. The process of taking over a word from other language is called the borrowing process. This process caused a process of morphophonology which happened in the word development. The pronunciation is different between the Latin languages of *pneumonia* with the pronunciation of *pneumonia* today. The lexical item has been listed in the dictionary which the meaning "a serious illness in which one or both lungs become red and swollen and filled with liquid" while in the medical dictionary it means "inflammation of a lung, where the tiny alveoli become filled with fluid".

DATA 18: Virus,



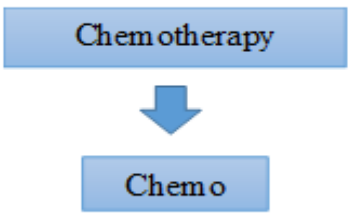
The borrowing process of the lexical item

The word clearly consists of a morpheme. It is a free morpheme that can stand alone without any affixes to have meaning. The morpheme itself is *virus.* It comes from Latin language *virus* which means 'poison, slime, venom'. The word is borrowed from Latin language to English. This process is called borrowing. There is a process of morphohonology that happened in this word development. The word *virus* is pronounced differently when it is in Latin and English language. *Virus* itself has been listed in the dictionary which the meaning is "an extremely small pieces of organic material that causes disease in humans, animals, and plants" while in the medical dictionary it means "a parasite consisting of a nucleic acid surrounded by a protein coat that can only develop in other cells. Virus cause many disease including common cold, AIDS, herpes and polio".

Back-formation

Clipping

CASE 19: Chemo



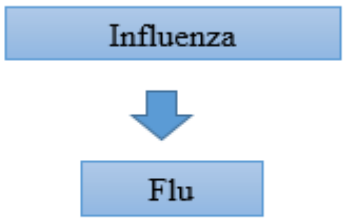
The clipping process of the lexical item

The word *chemo* can be considered as having one free morpheme. It can stand alone with meaning, even without affixes. It is from the word *chemotherapy* which means 'the treatment of disease using chemical.'. The word *chemical* which joined together with other word which is *therapy* and generates a new meaning. The words were joined by the combining vowel 'o' to connect the words.

The word-formation process that can be seen in the lexical item is the morph which exists in the other languages and seems like part of word with its meaning. This word-formation process of shortening a word to create a new word is called clipping.

There is a process of morphophonology that happens in this word-formation. The beginning of the word part was taken to create a new word. The pronunciation of *chemo* is still the same but another part of the word was taken away. The process of the word-formation does not create a new meaning. The meaning is still the same as *chemotherapy*. In the Dorland's Medical Dictionary *chemo-* means 'a combining form denoting relationship to chemistry, or to a chemical'.

DATA 20: Flu,



The clipping process of the lexical item

The word *flu* consists of a morpheme. It is considered as a free morpheme since the word can ~~be~~ stand by itself with meaning even without affixes. *Flu* comes from the word *influenza* that has four syllables, and it is shortened into one syllable. *Influenza* itself was borrowed from Italian language *influenza*. *Influenza is* "an acute, highly contagious respiratory disease caused by any of virus".

The process of reducing syllable in a word that has more than one syllable into a single syllable is called clipping. In this case, the word *influenza* is shortened into a single syllable which is *flu*. This process generates a new lexeme with meaning. There is a morphophonologIcal process happening in this word-formation. The word is pronounced differently after the word is clipped. Furthermore, the word has been listed in the dictionary which the meaning is "a common infectious illness that causes fever and headache".

Conclusion

The research was conducted in order to answer the research question (1) What word-formation processes of medical lexical items are involved in *The Jakarta Post* articles?, (2). How are the medical lexical items formed in *The Jakarta Post* articles?.

To answer the research question the researcher analyzed the data by classifying the word-formation using the theory of word-formation from Bauer (2003) and Yule (2006). The data was analyzed and the result showed that there were eight types of word-formation of medical lexical items found in ~~the~~ eleven *The Jakarta Post*'s Articles. They are compounding, derivation, blending, borrowing, acronym, inflection,

back-formation and clipping. The percentage of each types are 10.9% for compounding, 47.3% for derivation, 3.0 % for blending, 7.3% for abbreviation and acronym, 12.1% for borrowing, 17.0% for inflection, 0,6% for back-formation, and 1.8% is clipping. The total medical lexical items found in *The Jakarta* Post's articles are 165 which is occurred 526 times in the 11 articles. Therefore the most dominant type found in the articles was derivation word-formation.

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