PICTURING “CORONAVIRUS” IN NEWS ON THE WEB (NOW) CORPUS: 
A CORPUS LINGUISTIC STUDY

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ABSTRACT. Recently, “coronavirus” is viral since the outbreak firstly reported in Wuhan and today become a pandemic. The writers found the word “coronavirus” in News on the Web (NOW) corpus in a huge number. This research applied mixed-method in which quantitative and qualitative approaches are combined to provide a more complete understanding of the research. The objectives of the research are firstly, to portray the distribution and the time line of the word “coronavirus” in NOW corpus, and to identify the pair of the word “coronavirus” in NOW corpus. Based on the analysis of the data, firstly, it was reported on April 27, 2020 many countries, including Australia, New Zealand, Iran, and Spain did coronavirus lockdown to slower the growing number of coronavirus infected people and the number of the word “coronavirus” in NOW corpus increased significantly from 16,073 to 64,100 times. Secondly, it was found that the compound words containing the word “coronavirus” related to health terminologies: the compound words containing two words as nouns, the compound words containing three words as nouns, the compound words containing four words as nouns, and the compound words containing four words as an adjective and two nouns, compound words containing four words as nouns, and the compound words containing four words as an adjective and three nouns.

Key words: coronavirus; the web (NOW) corpus; corpus linguistic study

“CORONAVIRUS” DALAM NEWS ON THE WEB (NOW) CORPUS: 
KAJIAN LINGUISTIK KORPUS


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INTRODUCTION

Coronavirus disease or COVID-19 as a respiratory illness that is caused by coronavirus is viral today. It becomes a hot issue in the world since it was informed for the first time in China, where the first case of coronavirus was reported on November 17, 2019. The South China Morning Post announced that the first case was a 55-year-old individual from Hubei province in China who might have been the first person to have contracted COVID-19 (Bryner, 2020). According to the post, it was at least 266 people were infected in 2019 in China.

The name of Coronavirus is not a really new one, in 2003 Holmes reported that Ksiazek et al (1966) and Drosten et al. (1976) had informed that a dramatic example of an emerging coronavirus disease in humans. In 2005 Enjuanes (Ed) reported that coronavirus have been identified in mice, rats, chickens, turkeys, pigs, cats, rabbits, horses, cows, and humans and in 2006 Cavanagh has also reported coronavirus avian infectious bronchitis virus (Cavanagh, 2006; Enjuanes, 2005; Holmes, 2003). It was also reported that the coronavirus first showed up in the Middle East has spread to Tunisia in 2013 (Gulland, 2013). It was argued that at first the name of the virus as an outbreak, which is dominated by
pneumonia in Wuhan was named as 2019-nCoV by the World Health Organization (WHO). Later WHO renamed it as coronavirus disease 2019 (COVID-19) on February 11, 2020 while in the same day, Coronavirus Study Group (CSG) named it as an acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Jian et al. claimed that the appropriate name for the virus is human coronavirus 2019 (HCoV-19) as the renamed of SARS-CoV-2 (Jiang, Shi, Shu, Tan, & Guo, 2020) while the others argued that SARS-CoV-2 is the appropriate title for the virus (Wu et al., 2020). The present writers, in this paper, call the virus as coronavirus that refers to COVID-19 as WHO has named it.

The coronavirus, in the beginning, was an outbreak in Wuhan, then a couple weeks after becoming an epidemic and not long after it became a pandemic disease. It spread to nearly every country around the world. After having the first case on November 17, fourteen days later China alerted WHO about the unknown virus found in Wuhan. Thirteen days later it was identified the first outside case of China, Thailand reported a woman who infected by the virus had arrived from Wuhan, China. A few days after WHO declared the coronavirus as a global emergency on January 30, there were new cases were confirmed in India, Philippines, Russia, Spain, Sweden and the United Kingdom, Australia, Canada, Germany, Japan, Singapore, the US, the UAE, and Vietnam. In between February 10-16, it was confirmed Japan, Taiwan, Egypt and France reported the first death from the virus while Iran, South Korea, and Israel on February 17-23, 2020. On February 24- March 5, 2020 Kuwait, Bahrain, Iraq, Oman, Qatar, Norway, Romania, Greece, Georgia, Pakistan, Afghanistan, North Macedonia, Brazil, Estonia, Denmark, Northern Ireland and the Netherlands, Lithuania, Wales and Saudi Arabia indicated their first case, while Turkey, Ivory Coast, Honduras, Bolivia, Democratic Republic of the Congo, Panama and Mongolia confirmed their first cases on March 11. Since the number of countries are infected, WHO announced it as a coronavirus pandemic. Until today, The Al Jazeera and News Agency in 2020 reported that the pandemic has not been totally resolved, although the number of recovered much more compared to the death.

It was reported by worldometers as the real time world statistics information on https://www.worldometers.info/coronavirus/. On May 17, 2020 the coronavirus cases are 4,717,080 cases, including Indonesia as the thirty third country in the world. Of the total cases mentioned in the world, the deaths are 312,392 and the recovered are 1,810,119 while as the patients are 2,594,569 people. Until today, it is indicated that the three highest number countries are USA (1,507,925 cases), Spain (276, 505 cases), and Russia (272043 cases) while China as the place where the first case found has 82,941 cases as the number thirteen in the world.

Besides worldometers which reported the real time number of coronavirus cases, the English-corpora.org collected the corpus in various corpus online access. The corpus involved are iWeb: The intelligent Web-based Corpus, News on the Web (NOW), Global Web-Based English (GloWbE), Wikipedia Corpus, Corpus of Contemporary American English (COCA), Corpus of Historical American English (COHA), The TV Corpus, The Movie Corpus, Corpus of American Soap Operas, and The Coronavirus Corpus as the newest. The genres involved are web including news and blogs, Wikipedia, TV shows and movies while COCA involved fiction, magazine, newspaper, academic, spoken, blogs, web pages and TV/movies and COHA involved fiction, popular magazine, newspaper, and non-fiction books.

NOW as the corpus taken from the news on the web has newest information, especially the information of coronavirus since it was reported by English-corpora.org that “NOW is the ideal corpus at what is being said about recent topics like the coronavirus (COVID-19)…” . Corpus is a database of language in line with Flowerdew (1997) was cited by McEnery and Hardie, who argued that the corpus is used simply as a repository of examples (McEnery & Hardie, 2012). It is in line with Jones and Waller, who argued that corpus is stored electronically to ease the reader to search the collection of texts in both spoken and written clauses (Jones & Waller, 2015).

Many researchers do their research on corpus, this present research tries to illustrate the distribution and the time line of the word “coronavirus” in NOW corpus, and to describe the pair of the word “coronavirus” in NOW corpus. In 2006, a researcher did her research on a preliminary quantitative corpus-driven investigation of the discourse of the SARS health-related speech events which then leads to the exploration of the qualitatively (Cheng, 2006). Four years later, Davis claimed that the corpus actually reflects linguistic changes in the ‘real world’ (Davis, 2010). Sujatna et al. investigated auxiliary verbs and the word tourism in COCA (Eva Tuckyta Sari Sujatna, Heriyanto, Krisnawati, Amalia, & Pamungkas, 2020; M.L. Sujatna, Sujatna, & Pamungkas, 2019). Yuliawati et al. argued that the fast growing of this method (corpus linguistics) is not merely caused by the widespread availability of large
electronic corpora, but also by some distinctive analytical characteristics of this approach (Yuliawati, Dienaputra, Sujatna, Suryadimulya, & Lukman, 2019).

This present research observes coronavirus in NOW corpus, the present writers describe the distribution and the time line of the word “coronavirus” in NOW corpus and figure out the pair of the word “coronavirus” in NOW corpus. In describing the distribution and the time line of the word “coronavirus”, the present writers decided to classify the number of the word “coronavirus” per day and the time line is arranged related the date of data published that informed the spreading of the coronavirus pandemic in the world. The pair or the combination of the word “coronavirus” that the present writers found as the word formation relates to compounding. Compounding according to Sujatna et al. (2019) that combines two or more than words into one compounding word or phrase (E.T.S. Sujatna, Pamungkas, & Heriyanto, 2019). Earlier, in 2017, Pamungkas and Abdulah explained that compounding formed by combining two words together and produces new meaning (Pamungkas & Abdulah, 2017).

METHOD

1. The word “coronavirus” in NOW Corpus

NOW is one of the ten corpora published by English-corpora.org which can be accessed by online. It was established by the founder since 2010 up to now. It was claimed that the corpus grows millions of data each month from about 300,000 articles.

The corpus acquired in this present research was taken from NOW Corpus on https://www.english-corpora.org/now/. Since in the beginning of the year 2020, the corpus has increased significantly. It was reported that the corpus containing of the word “coronavirus” up to May 5, 2020 were 433,158 corpora although until the present time, the paper is composed, the number of the corpus is increased. It was compared to one day before, May 4, 2020 the corpora were 423,144 in other words in a day the corpus increased is about 10,014 corpus.

2. Mixed-method Research Design

The mixed-method design is applied as the research designed in which quantitative and qualitative approaches are combined to provide a more complete understanding of the research topic than either approach alone (Creswell & Creswell, 2018). The steps of corpus analysis involved to investigate the usage patterns of the word “coronavirus” are the frequency analysis in the NOW corpus found and the collocation analysis of the word coronavirus with other word found in the NOW corpus to find the new terminology found related to coronavirus.

RESULT AND DISCUSSION

In this paper, the present writers investigate two main things: distribution and timeline of the word “coronavirus” in the corpus and the pair of the word “coronavirus” in the corpus related to each field.

1. The Distribution and Timeline of the Word “Coronavirus” in NOW Corpus

From the 433,158 corpora reported up to May 5, 2020 the present writers could be able to download the corpus about 340,012. The downloaded corpus was began on April 24 – May 05, 2020 as described in the following figure.

Figure 1. Distribution of the Word “coronavirus”

Besides the distribution of the word “coronavirus”, the present writers also discovered the timeline of the coronavirus spreading in the NOW corpus as described in the following.

(1) in China where the first case of coronavirus was reported on November 17
(2) mornings, the virtual mum and baby classes you can join HIDDEN SPREAD # Coronavirus was in Europe in DECEMBER - a month before outbreak was known GLOVES ARE
(3) 84810014 Search form TRENDING: French scientists discover nation treated coronavirus patient in December # French scientists have identified the earliest-known case of COVID-19
(4) US broadcasters CNN and ABC report that the president’s intelligence briefings mentioned the coronavirus as early as 3 January.
(5) Thailand’s outbreak began in January, the country has seen a total of 2,988 coronavirus cases and 54 deaths
(6) .... # Healthcare under pressure # Japan recorded its first coronavirus infection in mid-January, and came under early pressure with a mass outbreak on board
coronavirus was detected in India on January 30.

a landlocked country of 26 million people between India and China, reported its first coronavirus case in January and by early February The Kathmandu Post, an English-language newspaper.

Starting from the first official case of coronavirus disease 2019 (COVID-19) recorded in Italy on February 21, 2020 in Lombardy.

it becomes necessary to lay-off any such staff. The first case of the coronavirus in sub-Saharan Africa was confirmed in Nigeria in late February. # Last Month, the virus was first detected in Kenya.

The first case of coronavirus in the world. The spreading described are found in the NOW corpus. The chronology of the expanding drawn in the NOW corpus was began from China in November 17, spread to Europe, including French, United States (US), Thailand, Japan, Australia, India, Kathmandu (Nepal), Italy, Nigeria, Kenya, and Yemen in April 30.

The word “coronavirus” found in NOW corpus related to different field of each. It was reported that there are several fields involved: health, psychology, economy, information technology, governance, politics, etc. This paper observes the word coronavirus combining with other words becoming a compounding, it means that the one word coronavirus found in the data is excluded. The present writers only focus on health field since the data found are dominant.

(i) Compound Words Containing Two Words as Nouns

The following data are compounding containing two nouns found in NOW corpus related to health.

... for coronavirus antibodies in Munich, April 15, 2020. The coronavirus pandemic is shaking fundamental assumptions about American exceptionalism -- the special role the US played.

(PPE), in the last three weeks. Recipients include Connecticut hospitals, coronavirus clinics, and testing sites, and first responders and skilled nursing facilities in local

can be up to 73%. For communities with a coronavirus diagnosis, it can be up to 103%.

World Health Organization -- that remdesivir did not improve patients’ condition or reduce the coronavirus pathogen in their bloodstream.

two months after the apparition of the first cases of coronavirus pneumonia, that the Joint Logistics Support Force (JLSF) troops entered the country.

# HYDERABAD -- Doctors in south eastern Sindh province say a coronavirus patient has shown improvement after being given plasma therapy, also known as passive immunization.
(30) being a healthcare provider, author, speaker, and lifeguard, and now, coronavirus survivor. She says she’d been home sick for eight days struggling with asthma

(31) ... Medical assistant Jhoana Guevara administers a coronavirus test at the first testing site opened in Paterson on Monday, May 4

(32) at Huron Valley Schools will remain closed even after the coronavirus quarantine ends.

(33) intensive care any longer, and normal care in the coronavirus ward would suffice, they could be transferred to the ward. For this

The data (13)–(33) show the word coronavirus is compounded with other words to become compounding. The form of the words, are classified into compounding since they have a new meaning. The word coronavirus in every compounding is a noun which is combined with another noun such as antibodies, clinics, diagnosis, droplets, epidemic, frontlines, genomes, hospital, illness, infection, kit, isolation, outbreak, pandemic, pathogen, pneumonia, patient, survivor, test, quarantine, or ward.

Related to the meaning, the compounding coronavirus antibodies in (13) means that antibodies produced as a response to coronavirus while the compounding coronavirus clinics in (14) describes the kind of the clinics which is dedicated to the coronavirus patients to have treatment in it. The words coronavirus diagnosis in (15) is also a compounding, the present writers do an analogy to cytologic diagnosis, meaning ‘for the detection of cancer’ in Merriam-Webster dictionary so the meaning of coronavirus diagnosis is ‘the detection of coronavirus’ while the compounding coronavirus droplets meaning in (16) is the droplets that containing the coronavirus (someone’s droplets who has infected by coronavirus).

The compounding coronavirus epidemic in data (17) means an epidemic which is caused by a kind of virus called coronavirus while the compounding coronavirus frontline in (18) means the people who work to handle the coronavirus pandemic (such as medical workers). The word epidemic itself, according to Merriam-Webster dictionary, has own meaning ‘an outbreak of disease that spreads quickly and affects many individuals at the same time: an outbreak of epidemic disease’. Coronavirus genomes and coronavirus hospital are also categorized into compounding. The compounding coronavirus genomes in (19) means the genomes which are possessed by coronavirus (Woo, Huang, Lau, & Yuen, 2010) while the coronavirus hospital (20) is similar to coronavirus clinics in (14) means the hospital which is dedicated to the coronavirus patients to have treatment in it.

Data coronavirus illness (21) means the illness which is caused by coronavirus and coronavirus infections (22) means the infections that are infected with the specific type of virus that is coronavirus. Both of the data are classified into compounding. The word coronavirus kit in (23) and coronavirus isolation in (24) are also compounding. The coronavirus kit means the special kit (for a test) which is needed to observe the coronavirus in someone’s body while the corona isolation is the isolation which is applied to someone who is suspected having coronavirus symptom.

Data coronavirus outbreak in (25) and coronavirus pandemic in (26) has similar meaning to data (17). Compounding coronavirus outbreak means an outbreak, which is triggered by a virus named coronavirus and the coronavirus pandemic also means a pandemic, which is caused by a kind of virus named coronavirus. The word outbreak means ‘a sudden rise in the incidence of a disease’ while the word pandemic means ‘an outbreak of a disease that occurs over a wide geographic area and affects an exceptionally high proportion of the population: a pandemic outbreak of a disease’ (Merriam-Webster online dictionary, 2020). In this case, the coronavirus disease spread in Wuhan at the same time called as an outbreak, while the coronavirus disease spread to many cities in China in the same time became an epidemic, and the coronavirus disease spread to many countries in the same time called as a pandemic.

Coronavirus pathogen in (27) means a specific pathogen named coronavirus caused a disease. Based on Merriam-Webster online dictionary (2020), the word pathogen means ‘a specific causative agent (such as a bacterium or virus) of disease’ while the word pneumonia means ‘an acute disease that is marked by inflammation of lung tissue accompanied by infiltration of alveoli and often bronchioles with white blood cells (such as neutrophils) and fibrinous exudate, is characterized by fever, chills, cough, difficulty in breathing, fatigue, chest pain, and reduced lung expansion, and is typically caused by an infectious agent (such as a bacterium, virus, or fungus)’ in this case, coronavirus pneumonia in (28) means pneumonia which is caused by the infectious virus named coronavirus.

The compounding coronavirus patient in (29) means the patient that is suffered or infected by coronavirus while coronavirus survivor in (30) means someone or a patient who is survived from coronavirus disease and coronavirus test (31)
means a test dedicated to suspected people suffering from coronavirus disease. The data coronavirus quarantine in (32) means an isolation for a period since a contagious disease in this case coronavirus disease and coronavirus ward in (33) means rooms in hospital or clinics which are dedicated to the coronavirus patient.

(ii) Compound Words Containing Three Words as Nouns
Besides the compounding containing two nouns, the following data are compounding containing three nouns found in NOW corpus.

(34) coronavirus antibody test is a lot more accurate # Several coronavirus antibody tests have been authorized for public use, but so far their accuracy (35) its limitations - Nigeria # Last Thursday at 12:57 PM # Tell your friends # Coronavirus disease COVID-19 has been a major topic in 2020 with countries across the globe battling Data coronavirus antibody tests in (34) describes the tests to check whether someone has coronavirus antibody or not while data coronavirus disease COVID-19 in (35) means the name of the disease that sometimes people called it as coronavirus disease or COVID-19 refers to CO = corona, VI= virus, D= disease, and 19= 2019 the year of the first time of the disease is identified. Both of them (coronavirus antibody tests and coronavirus disease COVID-19) are compounding.

(36) ... Dibley and Miranda sent messages of thanks last night to coronavirus front-line workers during BBC One charity special The Big Night In. Almost? 27.4m (37) If we have learned anything since the beginning of the coronavirus health crisis, it’s that a global pandemic isn’t enough for white Data coronavirus front-line workers (36) describes the workers who work in the frontline to handle the coronavirus disease while the coronavirus health crisis in (37) refers to the health crisis which is caused the coronavirus disease.

(38) the fact that the disease is relatively new, the Coronavirus immune responses is still under study. # “The pathogenesis is not well (39) the junior doctor who has tested positive was “in no way connected to the coronavirus isolation ward and had contracted the virus three days ago while performing surgery on a (40) 41959539 # A Hong Kong resident at a coronavirus quarantine centre has complained over the slow and confusing admission arrangements. Water Ng (41) to operate and maintain broadcast, which expire within the coronavirus quarantine period, would be automatically renewed for 60 days after the country’s (42) has pivoted its resources to deploy a new product: coronavirus test booths for use in hospitals. The booths allow healthcare professionals to conduct

The words Coronavirus immune responses in (38) is compounding since the combination of the words has a new meaning, it refers to immune responses produced as a reaction to coronavirus, the compounding coronavirus isolation ward in (39) means the isolation ward dedicated to coronavirus patients in hospitals or clinics. Data coronavirus quarantine centre in (40) refers to the quarantine centre especially for coronavirus patients while coronavirus quarantine period in (41) refers the quarantine period suggested to prevent the spreading of the coronavirus disease. The compounding coronavirus test booths in (42) means test booth which is dedicated to test suspected people suffering from coronavirus disease.

(iii) Compound Words Containing Three Words as Adjective and Two Nouns
The compoundings containing coronavirus found in NOW corpus are compound words containing three words as nouns as discussed earlier and the combination of an adjective and two nouns as described in the following.

(43) a vaccine, “she stated. # Clinical trials on vaccines against the new coronavirus COVID-19 were approved in Germany and launched in Britain Photo: AFP / Thibault Savary (44) 31799033 # BELGRADE, Serbia (AP) -- When China’s first shipment of coronavirus medical aid landed in Belgrade, the president of Serbia was there to kiss the (45) staying home to protect themselves from exposure to the new coronavirus SARS-CoV-2, “ the group wrote. “Those choosing the former were imperilling (46) ‘s DNA vaccine candidate created to protect against the novel coronavirus SARS-CoV-2, which causes COVID-19. INO-4800 was rapidly designed using INOVIO’s proprietary

Data (43) describes new coronavirus COVID-19 refers to the name of the new coronavirus (before, the coronavirus found as SARS) named COVID-19, so
the compounding new coronavirus COVID-19 refers to a new disease. Several years ago coronavirus has been known as a virus caused SARS disease, in other words, SARS and COVID has a close relation so the COVID-19 is claimed as a new coronavirus disease. Data coronavirus medical aid (44) refers to medical aid related to coronavirus disease. Referring to data (43), data (45) and (46) refers to similar thing in different name. The name SARS-CoV-2 refers to COVID-19, in other words new coronavirus SARS-CoV-2 is a term used to describe COVID-19, it happens to data (46) novel coronavirus SARS-CoV-2 refers to a term used to describe COVID-19.

**(iv) Compound Words Containing Four Words as Nouns**

Besides the two and three words combined in the compound words found in NOW corpus, the present writers also found two data as compound words containing four words. The four words are nouns as described in the following data.

(47) More # St. Anthony Regional Hospital announced today (Friday) they are opening a coronavirus drive-through testing site next week at their clinic in Denison. The site will open. There is only one data found as a compound word containing four words coronavirus drive-through testing site in (47). It describes a compound word containing four words and they are all nouns, the compound word means drive through testing site is devoted to people are suspected have coronavirus in their body.

**(v) Compound Words Containing Four Words as an Adjective and Three Nouns**

Different from the data (47) the compound words containing four nouns, the following data are compound words containing an adjective and three nouns.

(48) trial of a vaccine to prevent COVID-19, the novel coronavirus lung disease. # The trial for the BNT162 vaccine program is part of The data described in (48) novel coronavirus lung disease describes the lung disease which is infected by the novel coronavirus.

**CONCLUSION**

After collecting and analysing the data, the present writers conclude two main things. Firstly, on April 27-28 the number of the word “coronavirus” in NOW corpus jumped from 16,073 to 64,100 words as the peak number since many countries, including Australia, New Zealand, Iran and Spain did coronavirus lockdown to slower the growing number of coronavirus infected people. Secondly, it was reported that the present writers found compound words containing the word coronavirus related to health terminologies. There are five different compound words: compound words containing two words as nouns, compound words containing three words as nouns, compound words containing three words as an adjective and two nouns, compound words containing four words as nouns, and compound words containing four words as an adjective and three nouns.

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