An Analysis of the Registers in Health Articles of Covid-19 News in the Jakarta Post Online Newspaper

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Abstract. *In communication, to express ideas, feelings and thought people may use different kind of language with certain people in the right situations to communicate each other. The language used by people in society has variation which different context in each community. This study aimed to analyze registers about health, especially about covid-19 contained in online written news. It aimed to obtain a list of words and phrases that are commonly used by the medical team in mentioning certain terms about Covid-19 in the field of health which can give the contribution as the reference for common people. The study was delimited in the analysis of health registers of Covid-19 news in Jakarta Post online newspaper. The methodology used in this study was analytical research method and document analysis. The findings of the study were: (1) the health registers were identified in the health articles in Jakarta Post online newspaper were in word and phrase form; (2) the word formation mostly found was borrowing word, (3) the findings of the research had contribution to help common people to easy understand of covid-19 news.*
Keywords: health registers, online newspaper, word-formation

I.   Introduction

One of the functions of a language is utilized as a tool of communication. In communication, to express ideas, feelings and thought people may use different kind of language with certain people in the right situations to communicate each other. In a language people as the speakers utilize their language which has already bound by the social standards to easier understanding of the social standards which relate to the way how individuals utilize the proper language in certain communication domain by recognizing who involves within the communication (Budiarsa, 2015). Furthermore, Holmes (2001) states that language and society are intrigued in explaining why we talk in an unexpected way totally different social, setting, and it concern with recognizing the social capacities of language and the ways it is used to communicate social meaning. In addition, Kentika, Tino & Kasiyarno (2018) believed that social status, sexual orientation, age, ethnicity and the sorts of social systems individuals have a place to turn out to be imperative dimensions of personality in numerous communities. People as a rule make diverse language varieties concurring to the setting, place, and circumstance.

The language used by people in society has variation which different context in each community. For example, the language used by teacher will be different from entertainer, seller, doctor, etc. Each of word has each own characteristic and meaning. This kind of different language used in sociolinguistic is called as registers. It means that register is language used based on what speakers usually done in their daily activities naturally.

Holmes (2001) states that register in sociolinguistics is described as the language used by groups of people with common interest or jobs, or the language which is used in a situational associated with such community. In other words, register is a language which has special usage in a certain group or community dealing with their society. In a group or community, people use different languages from common speakers. In this case, register can appear misinterpret the meaning to the people who are not included as the group or community. It because they do not understand about the variation of words they used to construct the context of the register itself. In sociolinguistics, specific expressions, lexico-grammatical and phonological features which are included as linguistic features and the particular values of the three dimensions of field, mode and tenor decide the utilitarian assortment of a language register. Furthermore, Holmes (2013) explain that the linguistic features of a register are varieties which give the speakers with a determination of ways of expression containing the particular lexicon choices, syntactical patterns, word structures (morphology), and pronunciation. In this way, it can be deduced that linguistic features include vocabulary, sentence structure, morphology and pronunciation or phonetics (Ambarsari & Rusnaningtias, 2016). The choice of the lexicon depends on the setting since the meaning of the lexicon is caught on from the context (Bauer, 1998).

Considering to the register used in a certain group or community, there is also registers used in a health community such as used by doctor. Recently, health which becomes an important part of human life has received serious attention from all parties in all sectors due to the appearance of a dangerous disease which has become a global pandemic called as Covid-19 (Corona Virus Disease 2019). COVID-19 is a global pandemic which is classified as an infectious disease. This kind of disease is caused by the novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). With high transmissibility, a case fatality rate greater than 1%, and there is no effective antiviral therapy or vaccine yet, the mainstay of pandemic management has been containment and mitigation (Zhu, Zhang & Wang, 2019).

To become a person who lives in the midst of this great pandemic, of course, as social beings we need accurate and official information about the development of Covid-19. Nowadays most of people prefer to seek information through online news circulating on the internet. In this case, the researcher uses The Jakarta Post as online media which serves broad information accurately. According to its website on www.thejakarta.com, the Jakarta Post is daily English language newspaper in Indonesia which is owned by PT Bina Media Tenggara with the head office located in the nation capital, Jakarta.

As a global pandemic, the news about Covid-19 often comes and needed for a broad community, such as the international community. The words used by medical teams in the health field are quite difficult for general people to understand. Focus on the registers used by medical teams working on Covid-19, hence the need to learn registers in the field of health so that we can easily understand the news we read.

Therefore, this study aims to analyze registers about health, especially about covid-19 contained in online written news. The objectives of this present study are to find out:

1) List of words and phrases that are commonly used by the medical team in mentioning certain terms about Covid-19 in the field of health;
2) Which types of word formation mostly found on the health register of covid-19 news in the Jakarta post online newspaper;

Does the finding of this research give contribution to common people as the reader of the news?

II.   Literature Review

2.1 Registers
The term "register" was first utilized by Thomas B. Reid in 1956 in his article "Linguistic, structuralism, and philology" (Moreno & Skorczynska, 2013). Register is form which defines as the variation of language in any given context according to the use. It means that the use the language is as a communication for certain purpose (Southerland and Katamba, 1996:579). In addition, Halliday (1978) stated that register can be defined as the configuration of semantic resources that the member of a culture typically associates with a situation. In line, Trudgill (1974) defines that register is a language variety that is shaped by the work environment. Moreover, seeing by perspective of sociolinguistic Finegan and Biber (1994) view register as a language variety viewed with respect to its context of use which entails text and implies a relationship between text and contex. Further, Halliday and Hasan (1985) put forwarded three aspects as the features which can make register different from each other. The three aspects are field, tenor, and mode.

According to Wardaugh (1992) register is the way used by a speaker in using language differently in different circumstances. Register is defined as sets of vocabulary items associated with discrete occupational or social groups which becomes another complicating factor in several studies of language (Kentika, Kasiyamo & Tino, 2018). They give example that doctors, airplane pilots, bank managers, sales clerks, journalists and teachers may use different vocabularies during their works.

It can be taken conclusion that register is words or phrases used by group of people who have the same interest or job, then they have and use certain terms. They might be same on its phonology and morphology form but have different meaning based on its field and context.

2.2   Word Formation
2.2.1   Coinage
Yule (2006) states that coinage word is the invention of totally new terms. Coinage process is defined as the way of creating new word with referring to the most topical sources which are invented to the trade name for the certain commercial products and it becomes the general terms used in society. Honda for motorcycle, Vaseline for hand and body lotion. Besides, the addition to new words based on the name of person or a place. For example: Fahrenheit (from the German, Gabriel Fahrenheit), Volt (from the Italian, Alessandro Volta), and Watt (from the Scot, James Watt). The following are health registers formed by word coinage based on the health articles in Jakarta Post News.

2.2.2   Borrowing
Borrowing is one of the word formation processes to create new words adapted from other languages. The word that is borrowed is called borrowing, a borrowed word, or a loanword.

2.2.3 Blending
Katamba (1993) said that blending is the combination of two separate forms to produce a single new term Katamba (1993) said that blending is the combination of two separate forms to produce a single new term.

2.2.4 Clipping
Katamba (1993) stated that clipping is a process of new word by shortening the polysyllabic word or by deleting one or more syllables.

2.2.5 Acronym
According to Yule (2006) acronym is word formed from the initial letters of a name or combining initial letters of a series of words.

2.2.6 Abbreviation
An abbreviation is formed by taking the initial letters which does not result in well-formed syllables as stated Bauer (1983).

2.2.7 Compounding
According to Yule (2006) compound words are formed by combining two or more words into one unit with a perceptible lexical meaning. The two words can be the combination of noun + noun, adjective + noun, noun + verb, noun + adverb, verb + adverb, verb + preposition, and preposition + preposition.

2.2.8 Back Formation
Yule (2006) states back formation is a very specialized type of reduction process. Typically, a word of one type usually noun is reduced to form a word of another type usually a verb. i.e television to televise, emotion to emote, donation to donate, etc.

2.2.9 Inflection
Lyons in Bauer (1983) defines inflection produces from the stem (or stems) of a given lexeme all the word-forms of that lexeme which occur in syntactically determined environment. There are some types of inflection: plural (more than one), word as sign to change third person singular, past time (past tense), state time that goes on now (present participle/ present continuous tense), and degree of comparison.

III.   Methods

This study was included as a qualitative research which is using analytical research method. Analytical research method is a method that uses to discover information. Data and other important facts that pertain to a project are compiled in analytical research articles. After collecting and evaluating the information, the sources are used to prove a hypothesis or support an idea.

The data of this study was three health articles which work through about Covid-19 in the Jakarta post online newspaper presented in November to December 2020. The object of this study was health field in Covid-19 registers found in health articles of the Jakarta post online newspaper. The source of the data was accessed from www.thejakartapost.com.

Document analysis is carried out to collect data sourced from archives and documents both inside and outside, which have something to do with the research. Document analysis was the material gathering tool used by the writer in this study. As stated by Bowen (2009) document analysis is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning around an assessment topic. Analyzing documents incorporates coding content into themes similar to how focus group or interview transcripts are analyzed.

In this study the writer analyzed three online newspapers which were taken from the Jakarta Post Health articles which were the basis of the news and health focus on Covid-19 registers collected. In collecting the data and doing the analysis, the writer took the following steps:
1. Reading carefully several health works through Covid-19 articles in the Jakarta Post Health column.
2. Searching and classifying the data which can be categorized as health works through Covid-19 registers.
3. Analyzing the data by identifying the word formation of the words and phrases found.
4. Analyzing the context of data to identify the differences between the lexical meaning and contextual meaning.
5. Drawing the conclusions and suggestions based on the data analysis.
6. Constructing the output of the study.

IV.   Findings and Discussion

4.1 Findings

The health registers of three covid-19 news were identified in the health articles in Jakarta post online newspaper. The registers that were identified were in word and phrase. There are 46 registers classified in 6 types of word formations. The registers are following: one (1) or 2.2 % is included as word coinage, twenty (20) or 43.4 % are classified as borrowing word, (3) or 6.5% is acronym, 1 (one) or 2.2 % is abbreviation, 3 (three) or 6.5% is compounding, and 18 (eighteen) or 39.2% is categorized as inflection. The findings are seen on the data based table below:

Table 1
Registers Found in Health Articles of Covid-19 News of Jakarta Post Online News

Word Formation	Registers	Frequency	Percentage
Coinage	Kimia Farma	1	2.2%
Borrowing	Medicine, Corona Vaccine, Biotechnology, Drug, Scientist, Patient, Hematology, Epidemiologist, Lung, Doctor, Syndrome, Virus, Cell, Liver, Organ, Scar, Fatigue, Cell, tissue	20	43.4%
Acronym	BPOM, FAI , SARS	3	6.5%
Abbreviation	Covid	1	2.2%
Compounding	Antiviral, Antibody, Biotechnology	3	6.5%
Inflection	Vaccines, Patients, Cases, Lungs, Doctors, Kidneys, Organs, Veins, Medicines, Hospitals, Hospitalized, Drugs, Diseases, Arteries, Infected, Symptoms, Cells, Scientists	18	39.2%
Total register		**46**	**100%**

Not only words but phrase registers were found in health articles of covid-19 news. Phrase can be defined as a group of words, two or more which is part rather than a whole sentence used together (cannot be separated) that have certain meaning. There are 28 phrases found in three online news of health article.

Table 2
Registers in Phrases Found in Health Articles of Covid-19 News of Jakarta Post Online News

Registers in Phrases Found in in Health Articles of Covid-19 News		
Antiviral medication	Confirmed cases	Brain fog
Rapid test	Immune system	Lung arteries
Swab test	Lung damage	Shortness of breath
Health agency	Long COVID	Blood clotting
Test tool	Virus-infected cell	Anti inflammatory
Initial antibody response	Abnormal cell	Non hospitalized
No symptoms	Viral infection	Re-infection
Cellular immunity	Prolonged inflammation	T cell
immune response	Vast destruction of lung	
X ray	Initial infection	

4.2 Discussion

Referring to the findings of the research, it was found that the most word formation found on the health register of covid-19 online written news was borrowing. It dealt with the second research question on what word formation form which is mostly appear in the covid-19 news in online newspaper. Since borrowing is one of the words formation process to create new words adapted from other language. It is formed from other languages. These words are borrowing from several languages, such as Latin, French, and Greek. The writer believes that the use of those borrowing words because most scientific languages about medical do come from other languages, such as Latin and Greek. As cited from http://bppsdmk.kemkes.go.id the origin of terms related to health, pharmacy and medicine generally comes from Greek and Latin; and the adoption of German and French.

There were twenty borrowing words in this research found and it mostly came from Latin such as medicine comes from the Latin "*medicina",* Corona came from Latin "*corona*", vaccine came from the Latin word "*variola vaccinia",* biotechnology from Latin which consists of the word "*bio"* which means life, "*teknos"* which means "technology" and *logos* which means science, scientist came from the Latin word "*scientia*" which means "I know", Patient is derived from the Latin *patiens,* lung derived from the Latin word *pulmo*, *pulmōnis,* virus came from Latin *virion* which means poison, fatigue come from the Latin "*Fatigare*" which means to disappear.

Then, the writer was able to come up with a compilation of health articles registers as the output of her study based on the findings made. This compilation is called *The Glossary of Health Registers of Covid-19.* The glossary contains definitions for terms in the main text discussed that may be unfamiliar or unclear to the average readers. In this case, this glossary is presented alphabetically with its contextual definitions of health registers. It is hoped that this product will give the contribution to help the common reader of health news especially for covid-19 to get easier comprehension of health article especially on covid-19 news.

V.   Conclusions and Suggestion

Based on the findings of the study, the researcher concludes that there are many registers can be found in the health news in the Jakarta post online newspaper, especially about covid-19. The form of the registers is not only words but also phrases. Most of the registers found are in the borrowing word formation because mostly words of health are adapted from other languages such as Latin, Greek, French, and German. From the

list of words and phrases of health registers can be made of Glossary. As we know that glossary can be a mini dictionary which can give the explanation of words and phrases meaning for the reader. By reading the glossary, it can be a solution for the common people or readers to get information about what they do not understand. In conclusion, these registers found in health article of covid-19 news can give a contribution for common people to easier understand on what the news that they read.

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Appendix 1

GLOSSARY OF HEALTH REGISTER OF COVID-19

WORD REGISTERS

Antibody	:	a blood protein produced in response to and counteracting a specific antigen. Antibodies combine chemically with substances which the body recognizes as alien, such as bacteria, viruses, and foreign substances in the blood
Antiviral	:	chiefly of a drug or treatment which effective against viruses.
Arteries	:	any of the muscular-walled tubes forming part of the circulation system by which blood (mainly that which has been oxygenated) is conveyed from the heart to all parts of the body.
Biotechnology	:	the exploitation of biological processes for industrial and other purposes, especially the genetic manipulation of microorganisms for the production of antibiotics, hormones, etc
Biotechnology	:	the exploitation of biological processes for industrial and other purposes, especially the genetic manipulation of microorganisms for the production of antibiotics, hormones, etc
BPOM	:	It is Food and Drug Monitoring Agency in Indonesia.
Cases	:	an instance of a disease or problem
Cell	:	The body of organisms is made up of organ systems, organ systems are composed of organs, organs are formed by tissues, and tissues are made up of cells
Corona	:	which is a disease caused by a virus that attacks the respiratory tract in the lungs which was found at the end of 2019 in Wuhan, China

Covid	:	it is a disease caused by a virus that attacks the respiratory tract in the lungs which was found at the end of 2019 in Wuhan, China.
Diseases	:	a disorder of structure or function in a human, animal, or plant, especially one that produces specific signs or symptoms or that affects a specific location and is not simply a direct result of physical injury
Doctor	:	a qualified practitioner of medicine; a physician
Doctors	:	a qualified practitioner of medicine; a physician.
Drug	:	a medicine or other substance which has a physiological effect when ingested or otherwise introduced into the body
Drugs	:	a medicine or other substance which has a physiological effect when ingested or otherwise introduced into the body.
Epidemiologist	:	a person who studies or is an expert in the branch of medicine which deals with the incidence, distribution, and possible control of diseases.
FAI	:	Is a pharmaceutical company from the Philippines
Fatigue	:	extreme tiredness resulting from mental or physical exertion or illness.
Hematology	:	the study of the physiology of the blood.
Hospitalized	:	admit or cause (someone) to be admitted to hospital for treatment.
Hospitals	:	an institution providing medical and surgical treatment and nursing care for sick or injured people
Infected	:	(of a person, organism, etc.) affected with a disease-causing organism
Kidneys	:	Each of a pair of organs in the abdominal cavity of mammals, birds, and reptiles, excreting urine.
Kimia farma	:	Kimia Farma is one of the largest state-owned pharmaceutical industry companies in Indonesia, which was founded in 1817
Liver	:	a group of symptoms which consistently occur together, or a condition characterized by a set of associated symptoms
Lung	:	each of the pair of organs situated within the rib cage, consisting of elastic sacs with branching passages into which air is drawn, so that oxygen can pass into the blood and carbon dioxide be removed
Lungs	:	each of the pair of organs situated within the rib cage, consisting of elastic sacs with branching passages into which air is drawn, so that oxygen can pass into the blood and carbon dioxide be removed
Medicine	:	a compound or preparation used for the treatment or prevention of disease, especially a drug or drugs taken by mouth
Medicines	:	a compound or preparation used for the treatment or prevention of disease, especially a drug or drugs taken by mouth
Organ	:	a part of an organism that is typically self-contained and has a specific vital function
Organs	:	a part of an organism that is typically self-contained and has a specific vital function
Patient	:	a person receiving or registered to receive medical treatment.
Patients	:	a person receiving or registered to receive medical treatment.
SARS	:	The virus causes Covid-19
Scar	:	a mark left on the skin or within body tissue where a wound, burn, or sore has not healed completely and fibrous connective tissue has developed.
Scientist	:	a person who is studying or has expert knowledge of one or more of the natural or physical sciences.
Scientists	:	a person who is studying or has expert knowledge of one or more of the natural or physical sciences.
Symptoms	:	a physical or mental feature which is regarded as indicating a condition of disease, particularly such a feature that is apparent to the patient.
Syndrome	:	a group of symptoms which consistently occur together, or a condition characterized by a set of associated symptoms
Tissue	:	any of the distinct types of material of which animals or plants are made, consisting of specialized cells and their products
Vaccine	:	a substance used to stimulate the production of antibodies and provide immunity against one or several diseases, prepared from the causative agent of a disease, its products, or a synthetic substitute, treated to act as an antigen without inducing the disease.
Vaccines	:	A substance used to stimulate the production of antibodies and provide immunity against one or several diseases, prepared from the causative agent of a disease, its products, or a synthetic substitute, treated to act as an antigen without inducing the disease
Veins	:	Any of the tubes forming part of the blood circulation system of the body, carrying in most cases oxygen-depleted blood toward the heart.
Virus	:	an infective agent that typically consists of a nucleic acid molecule in a protein coat, is too small to be seen by light microscopy, and is able to multiply only within the living cells of a host.

PHRASAL REGISTER

Abnormal cell	:	Cells that experience abnormal growth
Anti inflammatory	:	Chiefly of a drug) used to reduce inflammation.
Antiviral medication	:	A substance used for medical treatment, especially a medicine or drug to against corona virus
Blood clotting	:	An important process that prevents excessive bleeding when a blood vessel is injured
Brain fog	:	Disorders of the brain that can inhibit the ability to think or remember things.
Cellular immunity	:	An immune response that does not involve antibodies, but involves the activation of phagocytes, specific cytotoxic T lymphocytes, and the release of various cytokines in response to antigens.
Confirmed cases	:	Confirmed cases are people who have tested positive for the Corona virus based on the results of laboratory tests in the form of PCR.
Health agency	:	Government implementing elements in the health sector
Immune response	:	The way of the body recognizes and defends itself against bacteria, viruses, and substances that appear foreign and harmful.
Immune system	:	A network of biological processes that protects an organism against disease. It detects and responds to a wide variety of pathogens, from viruses to parasitic worms, as well as cancer cells and objects
Initial antibody response	:	The initial antibody response is the body's immune response allowing the body to quickly gain control

		of the infection
Initial infection	:	Signs that appear at the beginning of being infected with a virus
Long COVID	:	Long-term symptoms in people infected with the covid virus
Lung arteries	:	Blood vessels that carry blood from the right ventricle of the heart to the lungs.
Lung damage	:	Lung damage is a condition in the lungs that is malfunctioning due to certain diseases or viruses
No symptoms	:	A situation where a person does not show any signs while being infected with the virus
Non hospitalized	:	out patient
Prolonged inflammation	:	Inflammation that occurs in organs that experience healing for a long time
Rapid test	:	A rapid test is a medical test that checks for viruses using the IgG and IgM present in the blood
Re-infection	:	The process of infecting or the state of being re-infected
Shortness of breath	:	A condition when a person has difficulty breathing
Swab test	:	Swab test is a test to detect the corona virus infection that causes Covid-19 using the PCR (Polymerase Chain Reaction) method.
T cell	:	A type of white blood that act as antibodies in the body.
Test tool	:	medical test equipment
Vast destruction of lung	:	Severe damage to the lungs
Viral infection	:	A condition when the virus enters a person's body, then attacks the body's cells and multiplies
Virus-infected cell	:	A state of cells in the body that have died due to being infected with the corona virus
X ray	:	A form of electromagnetic radiation used in the diagnosis of medical images