THE LOGICAL FUNCTION ANALYSIS ON THE THREAD ABOUT VACCINES IN SOCIAL MEDIA TWITTER

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Abstract

In logical function analysis, the analysis deals with clause complexes form which is the meaning relation of each clause in the clause complex. This thesis is about the logical function analysis used in the thread about vaccines in social media twitter. The objective of this research is to find out the types of logical function analysis in the threads about vaccines which is in clause complexes form. This research is conducted by qualitative descriptive approach which means this research makes the description of the situation. The data of this research is from the thread 1 about vaccine by Prof. Christine Pagel on her twitter account. The thread consists of 10 tweets that are 35 clause complexes. And the other data is from the thread 2 by Nida Qadir, MD on her twitter account. The thread consists of 5 tweets that are 21 clause complexes. The finding of this research is indicated that there are 2 main types of logical function; expansion and projection. In analyzing thread 1, there were 19 elaboration, 3 extension, 12 enhancement, and 1 types of idea. There is no locution type in thread 1. In analyzing the thread 2, there are 9 elaboration, 3 extension, 7, enhancement, 1 locution, and 1 idea.

Key words: Logical Function, Vaccine Thread, Twitter

A. INTRODUCTION

2019 is the scary year because there is an outbreak of malignant disease that can attack human which caused by the virus infections called SARS-Cov-2 as well known as COVID-19. According to Fiorenzato&Cona (2022) state the Covid-19 pandemic represents an unprecedented worldwide crisis with serious socioeconomic, physical and mental health consequences. This COVID-19 infectious virus causes health disorders to people such as shortness of breath, high

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fever, and death. The transmission of this virus is also very easy to be through the touch, so that many people are confirmed as positive to contract this virus easily.

Many rules are createdby the government to tackle this virus infection such as; people are forbidden to make a crowd, people should stay at home, people should wear the gas mask, people should maintain cleanliness, and people should be getting vaccinated. If there are a number of unvaccinated people against an infectious disease, there is a likelihood of a reemergence of that particular diease in that area (Quibranza III, 2021). Therefore getting vaccinated is important for people around the world especially in this pandemic era.

Based on data from NIAID (National Institute of Allergy and Infectious Diseases) on August 13, 2020 vaccines stimulate the immune system to produce immune responses that protect against infection. Vaccines provide a safe, cost-effective and efficient means of preventing illness, disability and death from infectious diseases. Vaccines are not 100% able to protect people from virus infection, but it is able to reduce the possibility of several symptoms and complications due to virus infection as well known as COVID-19.So vaccines are important to protect people from the virus infections, but it does not mean people are 100% protected from the virus infections. Vaccines help people to reduce the possibility of complications from the virus infection after getting the vaccines. It means people who are getting vaccines will not get a very dangerous effect when they have COVID-19 infections.

Many scientists, doctors, even governments try to urging people to get the vaccines such as socializing the importance of getting vaccines for people to prevent the spread of the corona virus infection. One way to socializing the important of vaccines is by using social media. Based on Kaewkitipong, Chen &Ractham (2016) users (people who use social media) adapt social media to fit their needs and to collaborate with others to produce useful content and information and to help others through the crisis. This era, social media is very useful for people around the world. People can get everything like motivations, job information, even news through the social media, so, every people must have social media.

Twitter is one of the famous social media which is very useful for people to get the information about the phenomenon happen around the world with no limit. Every people can use this social media to get that information. Garg (2022) states that Twitter is better social media since it involves in making viral news with fastets speed than any other media. It is known as real time multiblogging platform where news crack first and it plays a vital role to make a new viral. There is a 'Trending Topic' as a device on Twitter. It shows the phenomena that is being booming at that time because many people talk about that phenomena continuously in twitter.

Also, in Twitter every people can be the authors to send the experiences, information, messages, ideas, and opinions called Tweet. According to Garg, B (2022) Twitter is a social networking site which is used to communicate with other registered member through a short post of 140 characters called Tweets. Tweet can be in the texts, photos, videos, gifts, and emoticons form.

Since vaccines are going viral at that time because many people share their experience of getting vaccines. There are good and bad experiences about it and make many people hesitate of getting the vaccines. Therefore, many doctors as the authors make thread to socializing about the importance of vaccines for people around the world especially in this pandemic era, so that many people would like to get vaccinated.

For example, based on the data from Alan Turing Institute (2022) Prof. Christina Pagel who is a German-British mathematician and professor of operational research at University College London (UCL). She shares the information in a thread form which contains 10 Tweets about vaccines for people to understand the vaccinated and want to get the vaccinated. She is a famous professor. She followed by around 201.000 followers on her Twitter account and she has the verified Twitter account. The verified Twitter account should be used in order to prove the account is from a person who trust worthy (Garg, 2022). She shares the thread in a good and interesting way, so many people like to read her thread and comment on it.

According to the data from UCLA Health (2022) Nida Qadir, MD who shares the thread about how important vaccines to pregnant women in this pandemic COVID-19 era. She is an Associate Professor of Medicine and Associate Director of the Medical Intensive Care Unit at Ronald Regan UCLA Medical Center. She is also the co-director of UCLA's Post-ICU Recovery Clinic. She also followed by around 8.420 people in her Twitter account. She also has a verified Twitter account. Many people comment and like in her thread about importance of vaccines for pregnant women.

The thread which contains of several tweets is in the form of texts. The text is in clause complex form, so the text can be analyzed in metafunction. Metafunction is the semantic system that makes meaning of a related kind in functional grammar theory. Metafunction have several subparts such as ideational metafunction, interpersonal metafunction, and textual metafunction. In this research will only focus on logical function that is one of the types of ideational metafunction.

Logical function is the subparts of ideational metafunction which can be analyzed only in clause complex form. Logical function is the relation of each clause in clause complex. There are two types of logical function such as; expansion consisting of elaboration, extension, and enhancement, and projection consisting of locution and idea.

There are several research of logical function such as; the research from researchers Ginting. Y and Rahmah (2016) about The Logical Function Is *Simate-Mate* (The Mourning Tradition of Karonese's Culture), it deals with the types of logical function and the social value in mourning tradition of Karonese's culture, and also the research about logical functions by Annisa Risma Khairanni Lubis and Masdiana Lubis (2018) about Logico-Semantic Relation in 'Newspaper Texts On Jakarta Terror Attack'. It aims to describe the type of logico-semantic relation and to explain how logico-semantic relations are used in newspaper texts on Jakarta terror attack which the data is in clause complex form.

This research is analyzed the types of logical function on the threads about vaccines in social media Twitter. The threads thatcan be analyzed are from doctors as the authors who share the information about vaccines in their Twitter account. Their goal is to make people understand about vaccines since there are many rumors especially from the thread on social media Twitter about vaccines that make people have trust issue of getting vaccinated, so that, from these threads people get the understanding about vaccines and want to get vaccines to protect themselves and also to prevent the development of the corona virus infection. Threads which are consist several Tweets are made in the text form that consisting of several clause in the form of clause complexes.

The aim of this research is to make people do not misinterpretation about the meaning or the information that authors give on each Tweet that contains clause complexes in the thread about vaccines by analyzing the meaning relation of each clause in the clause complex or well known as logical function.

B. RESEARCH METHOD

In this research, the researcher uses the descriptive-qualitative method conducting this research. This research uses qualitative method to describe systematically the fact and characteristic of the data. The data collected are the subject's experiences and perspectives.

The data analysis in this research is the thread about vaccines from 2 doctors in their twitter account. The data are from the thread that is written by Prof. Christina Pagel which consists of 10 tweets that are 35 clause complexes, and the second data are from the thread that is written by Nida Qadir, MD which consists of 5 tweets that are 21 clause complexes.

In analyzing logical function analysis, there are 2 main type are expansion and projection. In expansion there are 3 types; elaboration, extension, and enhancement. In projection there are 2 types; locution and idea. The following table helps the researcher to classify each types of logical function analysis.

Figure 3.1 Types of Logical Function

no	Types of Logical Function Analysis	
	Expansion	Projection
1.	Elaboration	Locution
2.	Extension	Idea
3.	Enhancement	

C. RESULT AND DISCUSSION
1. Research Finding

In this research, the researcher analyzed the data obtained from the thread about vaccines from two doctors in their verified Twitter account in social media Twitter. There are 2 threads as the data that have been analyzed. Thread 1 is the data from Prof. Christina Pagel thread about vaccine in her Twitter account, and Thread 2 is the data from Nida Qadir, MD thread about vaccine in her Twitter account. The source data of the research consist of 56 clause complexes, 35 clause complexes from Prof. Christina Pagel's Twitter account and 21 clause complexes from NidaQadir, MD's Twitter account. To provide the brief explanation about the research, the researcher reveals the finding of the research based on the purpose of research problem to resolve the research question.

The data analyzed based on Halliday theory about logical function as the part of ideational metafunction in systemic functional linguistic. Based on Halliday theory, logical function reviewed about the meaning relation of each clause in the clause complex. Therefore, researcher analyzed the meaning relation of the thread about vaccines in media social twitter as the data of the research.

For answering the question of the research, the researcher analyzed the data based on the types of logical function study. There are two main types of logical function and the researcher is analyzed the data into those two main types such as expansion and projection. In expansion, the researcher analyzed the data based on three types of expansion are elaboration, extension, and enhancement. Then, in projection there are two types; locution and idea. The score of the data can be seen in the table below.

Table 4.1 Finding of Logical function analysis on the Threads about Vaccines

Data	Types of Logical Function Analysis				
	Expansion			Projection	
	Elaboration	Extension	Enhancement	Locution	Idea
Thread 1	19	3	12		1
Thread 2	9	3	7	1	1

The researcher conducted the discussion section according to the aims of this research is to find out the types of logical function analysis; expansion and projection on the thread about vaccines on the twitter account from Prof. Christina Pagel and Nida Qadir, MD. Further the types of logical function such as expansion consists of; elaboration, extension, and enhancement, and projection consists of; locution and idea, were interpreted to see the meaning relation of each clause in a clause complexes from the thread about vaccines on these two twitter account.

At the expansion types of logical function analysis there are; elaboration, extension, and enhancement as the subparts of expansion type. The investigation of these three subparts of expansion type proved the meaning relation of each clause in the clause complex. These three subparts of expansion were analyzed to make it clearly shown that there were found out the types of logical function analysis on the thread about vaccines in social media twitter from Prof. Christina Pagel and Nida Qadir, MD twitter account.

Based on the data above, elaboration types of logical function analysis, this type was mostly use on the thread about vaccines from Prof. Christina Pagel and Nida Qadir, MD on their twitter account. Elaboration type defines as the meaning relation of each clause in a clause complex which one clause describing and organizing the meaning of the main clause.

There are also extension and enhancement as the subparts of the expansion type. Extension used to describe the meaning of the main clause by adding the new information to the main clause in a clause complex. While enhancement used to describe the meaning of the main clause by qualifying it with some circumstantial features.

The researcher concluded the result of this research as elaboration type is the mostly used on the thread about vaccines in social media twitter from Prof. Christina Pagel and from Nida Qadir, MD twitter account as the data of this research, with 19 total of elaboration type from Thread 1 by Prof. Christina Pagel, and 9 total of elaboration type from Nida Qadir, MD. It concluded that both authors of these two threads wrote the clause complexes with another clause describing and organizing the meaning of the main clause in a clause complex in order to make the meaning or the information of clause complexes conveyed clearly to the readers.

At the projection types of logical function analysis, there are locution and idea as the subparts of projection type. The investigation of these two subparts of projection type proved the meaning relation of each clause in a clause complex

according to the process used on the clause complexes in order to link the meaning of main clause in a clause complex by having on process projected through the secondary clause.

Based on the data above, idea is the types that used in these two threads as the data analysis from Prof. Christina Pagel and from Nida Qadir, MD twitter account with the same total of both threads that is 1 total of idea. Idea is the meaning relation between each clause in a clause complex which one clause is projecting the other clause by projecting the idea by using mental process. It means both two authors wrote the thread based on their opinion and idea.

Compared to the thread by Nida Qadir, MD, locution is the type that did not used on the thread about vaccines by Prof. Christina Pagel thread on her social media twitter. Locution links meaning of each clause in clause complexes by using verbal process which means the clause carrying the feel of expressing ideas in the meaning.It means Nida Qadir, MD also included her opinion and idea through the thread by using verbal process to carrying the feel of expressing ideas in the meaning.

The findings of this research were different to the findings of the research conducted by Yohana Ginting and Rahmah (2016) with the title 'The Logical Function Is Simate-mate (The Mourning Tradition of Karaokene's Culture)'. The results of this research indicate that the elaboration type as the least used with percentage 8.13%, while enhancement as the type that mostly used with percentage 47.96%.

Another research would be compared to this research is by Annisa Risma Khairani Lubis and Masdiana Lubis with the research title is 'Newspaper Texts on Jakarta Terror Attack'. They used 3 news as the data analysis are; Text A, Text B, and Text C. The results of this research indicated the differences of the result in each text where extension as the dominantly occurs in the Text A, locution as the dominantly occurs in the Text B, and elaboration as the dominantly occurs in the Text C.

D. CONCLUSION AND SUGGESTIONS

The researcher conducted the conclusion section according to the discussion above which are there are two main types of logical function; expansion and projection. Expansion consists of elaboration, extension, and enhancement. Projection consists of locution and idea. These types were analyzed

into the threads about vaccines from Thread 1 by Prof. Christina Pagel and from Thread 2 by Nida Qair, MD on their twitter account.

After analyzed the data, the researcher concluded that elaboration types of logical function as the type that is mostly used from both Thread 1 and Thread 2. Then locution type of logical function as the type that is least used from Thread 2, moreover there is no locution type from Thread 1.

According to the findings, the result of this research, there are 28 total clause complexes for elaboration type, 6 total clause complexes for extension type, 19 total clause complexes for enhancement type, 1 total clause complex for locution type, and 2 total clause complexes for idea type.

For elaboration type, there are 28 total clause complexes which 19 clause complexes are from Thread 1 and 9 clause complexes are from Thread 2. Analyzing elaboration type of logical function analysis, it used conjunction or without conjunction, using dash (-), and also used infinitive, present participle, past participle, gerund, nominal group, and prepositional phrase. Also, analyzing the elaboration type they were exposition, exemplification, and clarification as the way to analyze the meaning relation as elaboration type of logical function analysis.

Expansion types of logical function were found out on the thread about vaccines from thread by Prof. Christina Pagel and Nida Qadir, MD in their twitter account. They were elaboration, extension, and enhancement of expansion type. The type that mostly used from both Thread 1 and Thread 2 is elaboration type. It concluded that Prof. Christina Pagel and Nida Qadir, MD wrote the thread about vaccines on their twitter account by describing and organizing the idea or the meaning of each clause in clause complexes which written into the thread. The use of elaboration aims to makes the meaning of the clause complexes were clear, it would make the information that authors tried to explain in their thread conveyed clearly to the readers.

It also same to the other types of expansion type are extension and enhancement. The use of extension is also to organizing the meaning of the main clause in the clause complexes by adding the new information while the use of enhancements is also to organizing the meaning of main clause by the other clause by qualifying the meaning with some circumstantial features. Both extension and enhancement also used to make the information that authors give conveyed clearly to the readers.

Projection type is the second main type of logical function analysis. Projection analyzed based on the process used on the clause complexes. They are locution and idea as the types of projection. Locution used verbal process which means the clause carrying the feel of expressing ideas in the meaning while idea used mental process to projecting the idea of each clause in the clause complex. The researcher did not find out the locution type on the Thread 1, it means Prof. Christina Pagel as the author of Thread 1 did not use the feel to express her idea or opinion through the thread. She used the valid data from the studies about vaccine to write the thread. Meanwhile Nida Qadir, MD as the author of the Thread 2 used this type to projecting her idea and opinion through the thread. It means they use the clause which presents it as an idea. In other word they wrote their idea into the thread.

Furthermore, the researcher did this research to help reader to more understand about logical function analysis which are studied about the meaning relation from each clause in the clause complex which are many types in it could be analyzed. And also this research help readers to avoid misunderstanding about the information given especially in vaccines context.

In conclusion, after the researcher do the research of logical function analysis on the thread about vaccines in social media twitter, the researcher find out the result that the elaboration types is mostly used in threads, and the locution is the least used in the threads. It means the meaning of the other clause in the clause complex is mostly use to describing the meaning of the main idea to get the detail information of the main clause.

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