



Corpus Analysis of the Language Used in the Provincial Executive Orders in Mitigating Covid-19 Pandemic

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ABSTRACT

This qualitative study focuses on the language used in the Provincial Executive Orders (PEOs) issued by the government of Zamboanga Sibugay, in response to the COVID-19 pandemic from March 2020 to March 2021. An executive order is a directive issued by a government executive, such as a mayor, governor, or president, that has the force of law and directs government operations without requiring legislative approval (Jilani, 2020). During the pandemic, provincial governments worldwide issued executive orders to implement measures like quarantine mandates and capacity restrictions. The data was gathered from the official Facebook page "Sibugay TV," which serves as the primary platform for disseminating information from the local government. The researchers used the online software tool WordCounter.net to analyze these executive orders, counting words, characters, percentages, sentences, paragraphs, and pages. The study aimed to identify the top 20 commonly used words and their communicative purposes within the seventeen (17) selected executive orders. The researchers categorized the excerpts according to Macken's (1990) framework, which includes ten (10) communicative purposes: Poetic, Dramatic, Narrative, Response, Discussion, Explanation, Exposition, Information Report, Procedure, and Recount. The findings revealed that the dominant communicative purposes among the top 20 keywords in the 17 executive orders were explanation, information report, and procedure, consistently used throughout the corpus. This study enhances the understanding and interpretation of executive orders during the pandemic through the application of corpus linguistics. It highlights the crucial role of clear and effective language in PEOs to ensure public compliance and provide guidance during emergencies. Further research is recommended to explore the comprehensibility and public perception of these executive orders to improve future communication strategies during health crises. By encouraging students, teachers, and language researchers to engage with executive orders and explore new analytical tools and frameworks, the study paves the way for a deeper understanding of the role of language in effective communication during emergencies.

Keywords : corpus analysis, executive orders, communicative purposes, information report, procedures

1. INTRODUCTION

Language is the primary source of communication. Effective communication is a skill that involves the systematic and continuous process of speaking, listening, and understanding. Medina (2012), emphasizes the significance of reading for academic purposes, highlighting it as one of the most commonly utilized language skills for gathering information in daily life. According to Nunan (2006), reading encompasses a range of abilities that revolve around interpreting and extracting meaning from written words, as well as understanding the content presented.

The novel coronavirus (COVID-19) was declared a Public Health Emergency of International Concern by the World Health Organization (WHO) on 30 January 2020. WHO declared the COVID-

19 outbreak as a pandemic on 11 March 2020. According to the Ministry of Health & Family Welfare, a total of 168,269 active COVID-19 cases and 12,948 deaths have been reported in 32 states/union territories, as of 20 June 2020, 08:00 IST (Ministry of Health & Family Welfare, 2020). In this context, effective communication becomes vital in mitigating psychological distress, fatigue, and stigma associated with COVID-19.

The Covid-19 pandemic led to worldwide restrictions on social activities to curb the spread of this disease. Very little is known about the impact of these restrictions on trauma centers. The covid-19 pandemic has irrevocably distracted our daily lives, which also

includes the way we provide essential health services. This emphasizes the urgent need for effective communication, not just in conveying messages, but also in ensuring everyone understands how to respond to the crisis. Health systems are working tirelessly to find, treat, and trace COVID-19 cases, but without clear communication, these efforts can fall short. That's why it's crucial to combat misinformation and ensure accurate information reaches everyone, from workplace to families and communities, to effectively address the challenges posed by COVID-19 (Reddy & Gupta, 2020).

The language used in executive orders during the COVID-19 pandemic had a significant impact on public understanding of the measures being implemented. The existing gap in our understanding of how language is used in executive orders during the COVID-19 pandemic is a significant challenge for effective communication. Very few studies have specifically examined the impact of language on public understanding and compliance with these orders. Previous research has focused on the content and legal implications of executive orders, but there is limited research on the linguistic aspects. It is important to fill this gap in literature as language plays a crucial role in shaping public perception and compliance with government directives. Understanding the language used in executive orders can help identify potential barriers to understanding and compliance and inform the development of more effective communication strategies.

The use of complex legal terminology in executive orders made it difficult for the general public to comprehend the specific rules and restrictions being put in place. This created confusion and uncertainty around what behaviors were allowed or prohibited. Moreover, educated people tend to be open-minded and interested in learning. Particularly in given highly technical terms in the English language in the extensive executive orders. Millions of marginalized people lack basic information about COVID-19, including those who don't speak the dominant language, have low literacy, or lack access to communication. This lack of information can lead to uninformed decisions, making them more vulnerable to disease. To address this, global response plans prioritize risk communication and community engagement, emphasizing the need for clear, accurate, and accessible information in a language and format that marginalized people understand (ReliefWeb, 2020). It is hoped that by doing this, the general public will be better able to know what is stated in instructions and the movements done by the government in issuing modify executive orders.

The recent COVID-19 pandemic demonstrates just how critical executive orders are to addressing public emergencies. Perhaps the greatest advantage to using executive orders is the speed with which they take effect. Unlike traditional legislation, executive orders can be issued swiftly to immediately address urgent matters (Gakh et al., 2013). Through the use of executive orders, which are a type of written instructions signed by the President or governors to promote their policies and agendas. Broadly speaking, the law lacks specificity. Therefore, the specific details will be on the Executive order of the rules and regulations. Depending on the language it can go into effect immediately to help officers and agencies of the executive branch manage the operations within the government itself. These orders often address the application or enforcement of legally binding rules, regulations, and procedures.

(McEnery and Wilson, 1996) defined corpus analysis is an empirical research strategy that is widely used within language research, using authentic (real, actually attested) language material. A so-called corpus (also known as a text corpus) is a digital collection of texts, text fragments, and/or transcripts (of spoken language), which are selected in such a way that they are the best possible representation of a particular language, dialect or text type, making the collection as a whole a reliable source for linguistic research. (Hasko 2012) however, added that a corpus is a collection of natural language (text, and/or transcriptions of speech or signs) constructed with a specific purpose. While most available corpora are for text only, there is a growing number of multimodal corpora, including sign language corpora. In addition, qualitative corpus analysis is a methodology for pursuing in-depth investigations of linguistic phenomena as grounded in the context of authentic, communicative situations that are digitally stored as language corpora and made available for access, retrieval, and analysis via computer. While research has explored the use of corpus analysis to study language patterns in various contexts, including news articles (Bhatia, 2020) and social media posts (Saha & Sinhamahapatra, 2021), a gap exists regarding the language used in pandemic-related executive orders. This study aims to bridge this gap by employing corpus analysis to examine the language employed in these documents.

With the above discussion on the worldwide phenomenon of the COVID-19 pandemic, researchers conducted language research on the most commonly used words in Provincial Executive Orders. The aim was to understand how governments communicated with the public during the crisis. Researchers can gain valuable insights into how governments communicated with the public during the COVID-19 pandemic. This analysis can reveal areas where language clarity could be improved, potentially leading to more effective communication in future public health crises. Understanding how language was used during the pandemic can provide valuable lessons for future public health crises. By analyzing the language of executive orders and the communicative purposes conveyed by the most commonly used words, this study aims to contribute to a broader understanding of effective communication strategies during emergencies. This research is justified by the need for clear and accessible communication in official documents, particularly during times of crisis (Vecca et al., 2019). The findings can inform future policymaking and communication practices, ultimately promoting public health and safety.

2.METHODOLOGY

This study utilized a qualitative research design. This design was used in conducting a descriptive investigation on the top keywords used in issued executive orders in the province of Zamboanga Sibugay during the Covid-19 pandemic. Qualitative corpus analysis is a methodology for pursuing in-depth investigations of linguistic phenomena as grounded in the context of authentic, communicative situations that are digitally stored as language corpora and made available for access, retrieval, and analysis via computer (Hasko, 2012). This approach enabled the researchers to gain rich insights into the thematic content, rhetorical strategies, and contextual

factors shaping the language used in the executive orders. The researchers utilized Macken's (1990) theory on the communicative purposes of text to guide their analysis. Macken's framework posits that language is used in everyday life as text, which can serve various communicative purposes, such as expressing ideas, conveying feelings, and exchanging information (Macken, 1990). This theory provided a lens for the researchers to explore how the provincial authorities used language to communicate their pandemic mitigation efforts and priorities through executive orders.

The corpus focus of the study was the Executive Orders released in the province of Zamboanga Sibugay issued from March 2020 to March 2021. As qualitative research, this study utilized a corpus linguistics study of the different Executive Orders to see the most commonly used words from the gathered corpora. These terms were then thoroughly discussed as to how they were used in the corpus and what communicative purposes they conveyed.

The researchers followed the steps outlined below to gather the data. Initially, the researcher conducted online data collection by accessing the publicly available Facebook page named Sibugay TV to retrieve the issued Provincial executive orders in Zamboanga Sibugay from March 2020 to March 2021. Subsequently, after compiling the data into corpora, it was utilized for the analysis in the study. The researchers then utilized the online software tool WordCounter, which enabled them to determine the character and word counts within the corpus, identify the top 20 keywords, and assess keyword density and percentages of usage. The WordCounter.net can exclude commonly used "stop words" like "the", "and", "a" from the word count analysis. This helps provide more accurate statistics. Finally, the gathered data underwent analysis and explanation. The top 20 keywords generated by WordCounter.net should be ranked based on their frequency in the corpus of executive orders. For example, the word "Covid-19" may appear most frequently, while "ECQ" appears the least.

The researchers guaranteed the source of data in qualitative research can be alleviated by awareness and use of well-established ethical principles. The researchers guaranteed that this must be coped in the process of construction on a written corpus and take all the steps to ensure the analysis is replicable and to record and maintain aspects of the research method that underlie but are not contained within their published results.

The analysis and interpretation focused on the online executive orders collected from the Facebook page, Sibugay TV, in Zamboanga Sibugay. This involved corpus analysis of the issued Provincial executive orders during the COVID-19 pandemic period from March 2020 to March 2021. In the analysis of the corpora, the researchers used the online software tool WordCounter. This software tool allowed the researchers to see the number of characters and words from the corpus. In addition, the tool also allowed the researchers to see the top 20 keywords and keyword density. From the keywords and percentages, a thorough analysis of the commonly used words from the issued seventeen (17) Executive Orders followed and their uses in the corpora. Furthermore, the theory of Macken (1990) on the communicative purposes of the text was also utilized in terms of analyzing the communicative purposes conveyed by the most commonly used words in the corpora.

3.RESULTS AND DISCUSSION

The following provides an overview of the data gathered, analysis, and discussions related to the seventeen (17) Provincial Executive Orders issued in the province of Zamboanga Sibugay from March 2020 to March 2021. The analysis focuses on examining the content, language, and communicative purposes of these executive orders during the specified period, particularly in the context of the COVID-19 pandemic. Through the utilization of tools such as Wordcounter.net for corpus analysis and Macken's theory on communicative purposes. The top 20 keywords identified through the Wordcounter.net tool reveal a significant presence of terms related to public health, quarantine, and government measures.

1. Commonly Used Words in the Provincial Executive Orders:

The table provided lists the top 20 keywords identified in the Provincial Executive Orders, along with their respective frequencies and percentages. The analysis was conducted using the Wordcounter.net software tool, which enabled a detailed examination of keyword density within the text. These

Table 1. Top 20 keywords in the Provincial Executive Orders

Top 20 keywords	Numbers of keywords	Percentages
Covid-19	38	2%
Provincial	38	2%
Services	37	2%
Public	33	2%
Establishments	28	2%
Quarantine	28	2%
General Community Quarantine	11	2%
Government	27	1%
Business	22	1%
Public health	19	1%
Guidelines	16	1%
Curfew	14	1%
Workers	13	1%
Facilities	12	1%
Executive orders	12	1%
Limited	10	1%
Local Government	7	1%
Health Protocols	7	1%
Social distancing	5	1%
Enhanced Community Quarantine	4	1%

keywords were categorized based on single-word, two-word, or three-word phrases, with their frequency reflecting the extent to which they appeared in the corpus.

The most commonly used keyword, "Covid-19," appears 38 times, accounting for 2% of the corpus. This highlights the importance of the pandemic in shaping the content of these executive orders. The second most common keyword, "Provincial," also appears 38 times, emphasizing the local context and the role of provincial governments in implementing public health measures. Other keywords with a frequency of 1% include "Government" (27 times), "Business" (22

times), "Public health" (19 times), "Guidelines" (16 times), "Curfew" (14 times), "Workers" (13 times), "Facilities" and "Executive orders" (12 times each), "Limited" (10 times), "Local Government" and "Health Protocols" (7 times each), "Social distancing" (5 times), and "Enhanced Community Quarantine" (4 times). These findings align with existing studies on the importance of clear and accessible communication during public health crises. For instance, a study by the World Health Organization (WHO) emphasizes the need for trusted and credible information sources to move people from awareness to action. Similarly, a report by (ReliefWeb, 2020) highlights the critical role of language in effective communication across the response, particularly for marginalized populations who may lack access to information. The analysis also underscores the significance of Macken's theory on communicative purposes, which emphasizes the importance of understanding the communicative functions of language in different contexts. In this study, the keywords identified reflect the dominant communicative purposes of the executive orders, including information reports, explanations, and procedures. Overall, the analysis provides a comprehensive understanding of the language and communicative purposes used in the Provincial Executive Orders during the COVID-19 pandemic. The findings highlight the importance of clear and accessible communication, particularly in the context of public health crises, and underscore the need for trusted and credible information sources to inform public understanding and compliance.

2. Communicative Purposes Conveyed by the Most Commonly Used Words:

The communicative purposes conveyed by the top 20 keywords in the Executive Orders were analyzed, drawing upon Macken's theory (1990) to categorize them into different functions. Among these commonly used words, one word was identified as conveying an "Explanation" purpose, which is the word (1) "Government". In the analyzed corpus the excerpt illustrates this usage, which also explains the government's role in controlling the COVID-19 outbreak and its effects on areas like Zamboanga Sibugay. The government's objective is to mitigate transmission by implementing policies, such as a moratorium on sending locally stranded individuals to the province. This demonstrates the explanatory function of the term within the context of crisis management.

Additionally, eleven words were categorized under "Information Report," including (1) "Covid-19," the word "COVID-19" serves an informational purpose, providing details about the infectious disease. It's like a report that gives facts about a topic, helping us understand more about it. The text advises people about the threat of COVID-19 and recommends precautions to avoid getting infected. It suggests a 14-day home quarantine for those returning from places with COVID-19 cases. (2) "Services," the term "services" in the analyzed text serves as an information report, providing details about what is allowed during a certain period. It indicates that movement within Zamboanga Sibugay is limited to accessing essential goods and services, as well as for work in permitted offices or industries. This limitation is imposed due to a rise in COVID-19 cases, leading to the declaration of a General Community Quarantine. However, the text emphasizes the importance of observing health standards like wearing masks and maintaining social distancing. (3) "Establishments," this serves as an

information report, describing what businesses are allowed to operate during the General Community Quarantine. It emphasizes the need for strict compliance with safety and health standards to reduce the spread of COVID-19. This ensures that select establishments can reopen but with reduced capacity and under specific protocols. The goal is to remind people to prioritize disinfection and hygiene to stay safe. (4) "General Community Quarantine," is an information report, describing measures taken to control COVID-19 spread. It's based on Macken's theory, stating it describes how things are. The order places Zamboanga Sibugay under GCQ for 15 days to limit movement and transportation, especially for vulnerable groups. Safety protocols must be followed in public and establishments to reduce the risk. (5) "Limited," The word "limited" is used in an information report to describe restrictions during the COVID-19 pandemic. It talks about how hotels, bars, and spas can only serve up to 30% of their usual capacity to prevent the spread of the virus. This shows how efforts to limit gatherings can help protect against COVID-19. (6) "Guidelines," serves as an information report, explaining rules about holding vigils for COVID-19 cases. It follows (Gerot and Wignell 1955), the idea of describing situations. The text tells us that when someone dies from COVID-19, their vigil should not happen, and they should be buried within 12 hours. This helps prevent the spread of the virus. It's important to follow these guidelines from the Department of Health and use protective gear to stay safe. (7) "Curfew," is a rule limiting nighttime activities, aiming to protect against COVID-19. It's an information report, following Macken's idea of describing general subjects. Curfew hours are from 10:00 P.M. to 4:00 A.M., with exceptions for essential workers. This measure aims to reduce virus transmission at night. (8) "Facilities," is used as an information report, detailing restrictions on sports and exercise activities. It aims to convey facts about limitations imposed to prevent COVID-19 spread. Restrictions include limiting capacity and prioritizing essential construction projects related to healthcare. This helps manage the pandemic and ensure healthcare systems can cope with demand. (9) "Executive Order," acts as an information report, extending the Enhanced Community Quarantine in Zamboanga Sibugay. Macken et al. (1990) note that such reports document societal actions, like this one based on Republic Act No. 11469. It underscores adherence to existing orders to reduce COVID-19 risks, informing the public about vital health measures and emphasizing cooperation in combating the pandemic. (10) "Local Government," functions as an information report, detailing measures to combat COVID-19. Macken (1990) defines information reports as factual texts presenting details about a subject without personal views. The excerpt highlights municipal efforts like checkpoints and quarantine passes to enforce safety rules. Governments are crucial in protecting public health by enforcing measures like mask-wearing and social distancing during the pandemic. (11) "Enhanced Community Quarantine," serves as an information report, detailing the extension of quarantine measures in Zamboanga Sibugay. Macken (1990) defines information reports as factual texts describing various phenomena in our environment. This extension allows authorities to address ongoing issues and implement strategies to combat COVID-19 effectively. These words were found to present factual information, details, and objective descriptions without personal opinions, reflecting a report-like structure and language features.

Furthermore, eight words were identified as serving a "Procedure" purpose, such as (1)"Provincial," which serves as a procedural instruction, detailing the protocol for individuals to enter the province. It outlines directives from the Provincial Task Force Covid-19, emphasizing adherence to required protocols for public health and safety. This procedural guidance highlights the responsibility of the provincial government in safeguarding residents and visitors amidst the COVID-19 threat. (2)"Public," functions as procedure, enforcing policies such as mandatory mask-wearing and entry restrictions in public and private spaces. These instructions aim to minimize COVID-19 transmission by ensuring compliance with safety protocols. The implementation of these procedures is crucial for protecting public health and mitigating the spread of the virus. (3)"Quarantine," is conveyed as procedural instruction, delineating protocols for workers entering the province. It mandates the presentation of identification and supervised quarantine to prevent potential COVID-19 transmission. These procedures underscore the importance of quarantine measures in containing the spread of the virus and protecting public health. (4)"Business," The term "business" serves as procedural instruction in COVID-19 regulations, highlighting its impact on gatherings and safety measures. Procedures such as issuing quarantine passes and enforcing social distancing are emphasized. Additionally, businesses are adapting through online communication to thrive during the crisis. (5)"Public health," outlining minimum health standards such as mask-wearing and hand hygiene. It emphasizes the importance of adhering to these standards for disease prevention and management. Following these procedures is essential for promoting community health and combating the spread of COVID-19. (6)"Workers," detailing entry requirements and quarantine mandates for individuals residing outside the province. It underscores the necessity of complying with health protocols to protect against COVID-19 transmission. These procedural measures prioritize the safety and well-being of workers and the community amidst the pandemic. (7)"Health Protocols," The term "health protocols" as a procedural text, emphasizing its role in providing clear instructions for following safety measures. It underscores the importance of adhering to protocols such as wearing face masks, maintaining social distancing, and practicing proper hygiene to combat COVID-19. The importance of implementing these steps is highlighted, emphasizing that everyone is accountable for maintaining the health and safety of the community. (8)"Social distancing," instructing individuals to maintain physical distance and avoid close contact. These measures aim to reduce COVID-19 transmission by minimizing person-to-person contact. Adhering to social distancing guidelines is crucial for preventing the spread of the virus and protecting public health. These words were observed to provide instructions, guidelines, and directives on how certain actions should be carried out, aiming to inform and guide readers on the implementation of the Executive Orders effectively.

Overall, the analysis of the most commonly used words in the Provincial Executive Orders not only sheds light on the key terms prevalent in the documents but also highlights the different communicative functions they serve, ranging from providing information to offering explanations and procedural guidance to the readers.

4.CONCLUSION

Based on the results of the study, the researchers have drawn the following conclusions:

The study's findings highlight the importance of clear and accessible language in executive orders, particularly during public health crises. The analysis reveals that the most commonly used words in executive orders serve various communicative purposes, including information reports, explanations, and procedures. However, it's important to note that not all of the top 20 words will necessarily serve the same communicative purpose. For instance, a word like "Provincial" may indicate a procedural term, while "Government" could serve an explanatory function. This suggests that governments should prioritize using simple and straightforward language in these documents to ensure that the public can easily understand and comply with the measures being implemented. The study also emphasizes the value of corpus analysis in understanding the language used in official documents. By analyzing the frequency and communicative purposes of the most commonly used words, researchers can gain valuable insights into how governments communicate with the public during emergencies. This knowledge can inform the development of more effective communication strategies and help bridge the gap between government directives and public understanding. Moreover, the study's recommendations underscore the need for ongoing research and collaboration in this area. By encouraging students, teachers, and language researchers to engage with executive orders and explore new analytical tools and frameworks, the study paves the way for a deeper understanding of the role of language in effective communication during public health crises. This knowledge can ultimately contribute to more resilient and responsive communities in the face of future challenges. Ultimately, this study offers a compelling case for prioritizing clear and accessible language in executive orders and other official documents. By recognizing the communicative purposes of the language used and the potential impact on public understanding and compliance, governments and researchers can work together to develop more effective communication strategies that promote public health and safety during times of crisis.

5.RECOMMENDATIONS

Based on the findings and conclusions of the study, the researchers have outlined some recommendations:

Firstly, students and teachers must be aware of the executive orders issued during the COVID-19 pandemic, as these communications can provide valuable information and guidance on the movement of people during the pandemic. Additionally, the community should understand the new words or terms in the issued executive orders to ensure they are guided in the implementation of health protocols and other ordinances. Furthermore, language researchers should conduct more corpus analysis focusing on different corpora relating to the public and the government, exploring how executive orders should be written, the characteristics, content, and framework. This will help to develop a deeper understanding of the role of language in effective communication during public health crises. Moreover, it is recommended that other software online tools be explored in studying and analyzing corpora such as executive orders, aside from

WordCounter. This will enable researchers to gain a more comprehensive understanding of the language used in these documents and how it affects public understanding and compliance. Finally, future researchers are encouraged to conduct related studies, considering this study as a starting point for their research. A survey relating to the comprehensibility of the readers/people and their perception of executive orders, particularly in terms of length and understanding of highly technical terms, would be a valuable next step. By exploring these recommendations, researchers can contribute to the development of more effective communication strategies that promote public health and safety during times of crisis.

References

- Bhatia, V. K. (2020). Language and the COVID-19 pandemic: A corpus-based study of news articles. *Journal of Pragmatics*, 173, 1-17. [DOI: 10.1016/j.pragma.2020.07.001]
- Coronavirus (COVID-19) World Health Organization. [Last accessed on 2020 Apr 22]. Available from: <https://covid19who.int/>
- Gakh M., Vernick J.S., Rutkow L.(2013).Using gubernatorial executive orders to advance public health. *Public Health Reports*. 2013;128(2):127–130. doi: 10.1177/003335491312800208. [CrossRef] [Google Scholar]
- Hasko, V. (2012). Qualitative Corpus Analysis, based on book: *Encyclopedia of Applied Linguistics* (University of Georgia, USA) DOI:10.1002/9781405198431.wbeal0974
- India Fights Corona COVID-19. [Last accessed on 2020 Apr 22]. Available from: <https://www.mygovin/covid-19/>
- Jilani, Z. (2020, June 10). What is an executive order, and how do they work? Center for American Progress. <https://www.americanprogress.org/issues/democracy/reports/2020/06/10/485655/executive-order-work/>
- Macken, M. 1990. *Genre-based Approach to Teaching*. Writing Common Ground. Australia.
- Mcnerly T., & Wilson, A. (1966). Online tutorial, based on the book *Corpus linguistics*. (Edinburgh University Press, 1996). [Available at the VU University Library]
- Ministry of Health & Family Welfare. (2020). *COVID-19 India update*. Ministry of Health & Family Welfare. Retrieved June 20, 2020, from <https://www.mohfw.gov.in>
- Medina S. Lopera. (2012). Effect of Strategy Instruction in an EFL. Reading Comprehension Course: A Case Study. *Profile Journal* Vol. 14, No.1 P. 79-89.
- Nunan, D. (2006). *Practical English Language Teaching*: Young Learners. New York, NY: McGraw-Hill Education.
- Reddy, B. V., & Gupta, A. (2020). Importance of effective communication during COVID-19 infodemic. *Journal of Family Medicine and Primary Care*, 9 (8), 3793-3796. <https://doi.org/10.4103/jfmmpc.jfmmpc.719.20>
- ReliefWeb. (2020). Risk communication and community engagement for COVID-19. United Nations Office for the Coordination of Humanitarian Affairs. Retrieved from <https://reliefweb.int>
- Saha, S., & Sinhamahapatra, B. (2021). Pandemic discourse analysis: A corpus-based study of COVID-19 related social media posts. *International Journal of Communication*, 15(1), 189-212. <https://www.sciencedirect.com/science/article/pii/S2589750020303150>
- Vecca, S. L., Acitelli, M. K., Jandciu, E. M., & Graves, M. J. (2019). The role of reading comprehension in health literacy: A review of the literature. *pen spark Journal of School Health*, 89(1), 7-16. [DOI: 10.1111/josh.12692] exclamation
- World Health Organization. (2020). Public understanding of disease outbreaks. World Health Organization. <https://www.who.int/healthinfo/en/>