

## **Multimodal Discourse Analysis: Kim Jong-Hyun's Suicide Report from South Korea and United Kingdom's Online Articles**

**Hanifa Az Zahrawaanis Sonia<sup>1,\*</sup>, Laily Maulida Septiana Harti<sup>2</sup>**

<sup>1</sup>*State University of Surabaya, Surabaya, Indonesia*

<sup>2</sup>*State University of Surabaya, Surabaya, Indonesia*

*\*Corresponding Author: hanifa.18076@mhs.unesa.ac.id*

### **ABSTRACT**

This study reports a Multimodal Discourse Analysis of thirteen English-language online articles from South Korea's and the United Kingdom's news media reporting Kim Jong-Hyun's suicide on 18th - 19th December 2017. This qualitative study refers to Halliday's ideational metafunction and Kress & van Leeuwen's representational meaning. This study is limited to analyzing online articles' headlines and lead images to find how news media from South Korea and the United Kingdom differ in reporting Kim Jong-Hyun's suicide. Upon the analysis, both South Korea's and the United Kingdom's news headlines are mostly employing material processes. Yet, South Korea's news headline is not only written about Kim Jong-Hyun's death but also the impact on society. Meanwhile, the United Kingdom's news headlines provide more information about the reason background of why Kim Jong-Hyun took his own life. Also, within the representational meaning analysis, it is found that South Korea's lead images are more variative especially when its lead image combines narrative and conceptual processes compared to United Kingdom's lead image which is more general and more or less stable and timeless essence. This study is also significant to the discourse of suicide news reports which is rarely analyzed.

**Keywords:** Multimodal Discourse Analysis, Ideational Metafunction, Representational Meaning, Suicide Report, News Media Comparison

### **INTRODUCTION**

News report, ideologically inclined and with an agenda to influence their intended audience, can give a negative impact on increasing the risk of a copycat suicide when it is reported and portrayed to glorify or described the method explicitly (Carmichael & Whitley, 2019; Cheng et al., 2007; Victor et al., 2019; White, 2006). In addition, it is very easy to access and read relevant news with no barrier of language such as English-language online articles. According to Ghannam (2011) language can be used in many ways to enhance or manipulate messages. Furthermore, the use of language is still inclined to human social history as the background in which it has shaped them in terms of religion, race, social class, and more (White, 2006; Yu, 2022). Therefore, an English-language online article would have characteristics based on where it came from.

Some previous studies analyzed suicide news report such as Cheng (2007), Carmichael & Whitley (2019), and Victor (2019). The objective of Cheng's (2007) study is to explain the increasing in suicide rate in Taiwan after the media reported celebrities' suicide. Meanwhile, Carmichael & Whitley (2019) analyzed United States' newspapers which similar to Victor (2019) from Malaysia that the suicide news report's content is still mainly focused on the

method used by the victims. Therefore, those previous studies have discussed the effect of reporting suicide and its content meanwhile this recent study would analyze the discourse or the use of language from suicide news report specifically an English-language online article.

When accessing an online article, two important parts that always recognizable on the screen are the news headline and the lead image. The role of headlines is crucial due to their ability to help the reader summarize the article's main idea or select the articles they want to read, and able to maximize the reader's interest to read the article (Ifantidou, 2009). Meanwhile, the role of the lead image in news discourse was initially seen as the illustrative connection to verbal reporting. Even though the verbal took most control with the description, putting lead images in the news could help the reader not only to identify such figures but also to humanize and empathize with them (Economou, 2006). Therefore, it is important to use a multimodal approach since many combinations of modes are included in an online article (Bednarek & Caple, 2014; Lim, 2011; O'Halloran et al., 2018; O'Halloran & Lim, 2014).

Jewitt, Bezemer, and O'Halloran (2016) introduce Multimodal Discourse Analysis (MDA) as a field of discourse that deals with the grammar of semiotic resources. It aims at understanding semiotic resources' functions and the meaning conveyed when semiotic choices interact over space and time in multimodal phenomena. Thus, it will be adequate and able to reach a deeper understanding of the meaning of the discourse since the analysis combines more than one theory (Ventola et al., 2004). The theories used for this study are Systemic Functional Linguistics from Halliday and Matthiessen's (2004) ideational metafunction and Kress and van Leeuwen's (2020) visual grammar of representational meaning.

The theory from Halliday and Matthiessen (2004) is suitable because of the ideational function roles as the representation of the world around. Especially this is the component through which the language encodes the cultural experience, and the speaker encodes his own individual experience as a member of the culture (Halliday, 1978). Also, the ideology of "showing themselves" exists in the structure of transitivity namely participant, process, and circumstance. Meanwhile, in Kress and van Leeuwen's theory (2020), the metafunction of experimental or representational is concerned with the experience depiction and also the conceptual relationship between person, location, and object which can be seen inside the visual image.

Kim Jong-Hyun's suicide was chosen as the topic, considering the effect of copycat suicide and the rising of suicide rate in South Korea after his death (Coconuts Jakarta, 2017; Suzuki, 2019). Furthermore, this study not only analyzed English-language online articles from South Korea but also popular news media from United Kingdom (Majid, 2022). Therefore, this study is directed to answer questions on English-language online articles from South Korean and United Kingdom news media as follows:

1. What is the ideational meaning constructed from the news headline?
2. What is the representational meaning constructed from the lead image?
3. How do news media from South Korea and the United Kingdom differ in reporting Kim Jong-Hyun's suicide?

## **METHOD**

This study is a multimodal discourse analysis on English-language online articles from South Korea and United Kingdom about Kim Jong-Hyun's suicide news report from the first announcement of his death on 18th until 19th December 2017. On analyzing the data multimodally, this study refers to theories from Halliday and Matthiessen (2004) and Kress and van Leeuwen (2020). A qualitative method is applied for this study because it conveys the

result properly in the form of detail text. As stated by Creswell and Creswell (2017), qualitative research as a type of interpretative investigation in which the researchers interpret what they see, hear, and understand.

The data for this study are thirteen online articles from four news websites, namely The Korean Herald, The Korea Times, BBC, and The Guardian. The data were taken by deploying a keyword searching strategy, “Kim Jong-Hyun” + “suicide”, directly on each website. The Korea Herald was chosen because it is one of the largest English news sources from South Korea and a member of the Asia News Network (ANN). Likewise, The Korea Times is well known as one of the oldest news media in South Korea. Meanwhile, BBC and The Guardian were chosen due to their popularity as the most used news website in the United Kingdom (Jigsaw Research, 2020).

Later, the data findings would be grouped by modes to answer the question on transitivity analysis of the process, participant, and circumstance according to Halliday and Matthiessen’s ideational meaning (2004) and Kress and van Leeuwen’s representational meaning (2020). Following that, they are compared to find the difference and similarities between South Korean and United Kingdom English-language online articles on reporting Kim Jong-Hyun's suicide.

## FINDINGS AND DISCUSSION

After analyzing thirteen online articles, the summary of the news headline's ideational meaning and the lead images’ representational meaning is tabulated.

### IDEATIONAL MEANING

According to Halliday and Matthiessen (2004), ideational meaning is the reflection of language that provides the theory of human experience as a representation of language. This meaning can answer the ‘what is happening?’ question. The analysis focused on the structure of transitivity which are participant, process, and circumstance. Thus, the dominant transitivity types of each element could show the purpose and point of view between South Korea’s and the United Kingdom’s English-language online articles.

#### PROCESS IN THE NEWS HEADLINE

TABLE 1. Types of Process from News Headline

Process	South Korea’s News Headline (n=8)	United Kingdom’s News Headline (n=5)
• Material	3	5
• Mental	2	-
• No Process	3	-

Table 1 displays two types of processes from the news headline: material and mental processes. The most dominant process from South Korea’s online articles is the material process, with three findings shown. In addition, three news headlines from South Korea do not

have any process. Rather, they are in the form of phrases. Meanwhile, all United Kingdom's online articles are material processes. The material process is a clause of doing and happening. It construes a quantum of change in the flow of events as taking place through some input of energy (Halliday et al., 2004). Thus, it is implied that the news headline from South Korea and United Kingdom English-language online article mostly describes physical activities and want to show the fact to the audience. The examples of how news headlines show the reality using material processes can be seen in Figures 1 and 2.

[Update]	SHINee's Jonghyun	dies	in hospital
Qualifier	Participant: Actor	Process: Material	Circumstances: Location (Place)

FIGURE 1. Material Process from The Korea Herald's News Headline

Shinee Singer Jonghyun: Kpop boy band superstar	dies
Participant: Actor	Process: Material

FIGURE 2. Material Process from BBC's News Headline

Both news headlines from South Korea and the United Kingdom use the material process to give proper descriptions of the death of Kim Jong-Hyun presented by the verb *dies*. The verb *dies* is an intransitive action verb that does not take any direct object and typically answers the question of "How". Yet, as a material process, the verb implied the way something happened due to the participant, actor, or action. Also, it answers the question about what the participant does (Butt et al., 2003). Moreover, the context was Kim Jong-Hyun's action to take his own life. Therefore, both news headlines in Figures 1 and 2 tried to deliver the same idea of Kim Jong-Hyun's death due to suicide.

But even though both news headlines from Figures 1 and 2 were similar, another material clause from South Korea's news headline was less variative than United Kingdom's. South Korea's was mainly conveying Kim Jong-Hyun's death as in other examples *Singer Jonghyun of Shinee found dead in studio* meanwhile the United Kingdom's wrote deeper discussion, *Jonghyun: Note shows K-pop star's struggles with depression* and *K-pop singer Jonghyun's death turns spotlight on pressures of stardom*. Therefore, the material clause from the United Kingdom's news headline could provide their readers with more information about the background of why did Kim Jong-Hyun take his own life more than South Korea's.

Despite those findings, South Korea's online article still reported the way society perceived Kim Jong-Hyun's death. The example is *Kpop act Shinee Mourns Loss Because of Singer Kim Jong Hyun*. This type of headline would carry an emotion of how people feeling, thinking, and perceiving on Kim Jong-Hyun's death. It also encodes the inner world of cognition and perception, or in transitivity it is called as mental clause (Halliday & Matthiessen, 2004). Hence, the news headline in South Korea's article could provide their readers with an idea about the sadness towards the loss of Kim Jong-Hyun instead focused only on the suicidal.

#### PARTICIPANTS IN THE NEWS HEADLINE

Following the process, the participant in the transitivity element is usually a nominal group. Participant meant differently based on which process occurs in the clause. Participants can also show control of the process (Plemenitaš, 2004). The finding on news headlines participant can be seen in Table 2.

TABLE 2. Types of Participants from News Headline

Participant	South Korea's News Headline	United Kingdom's News Headline
• Actor	3	5
• Goal	2	2
• Senser	2	-

In Table 2, there are three types of participants from the news headline: senser, actor, and goal. The dominant participant both from South Korea's and the United Kingdom's headlines is actor. The actor here functions as the controller of the process which actively defines who involved with the happening action (Plemenitaš, 2004)

In South Korea's news headline, it was found that the actor was in the form of a noun phrase: *Singer Jonghyun of Shinee* and *Shinee's Jonghyun*. Also, the noun phrase was a possessive deictic, *Jonghyun's Death*. Halliday and Matthiessen (2004) explained that possessive deictic is a specific subset of the thing that references to person as defined from the standpoint of the speaker. Meanwhile, four actor participants were found in four of the United Kingdom's news headlines, which is *Kim Jong Hyun*. In addition, only one headline from BBC news was different, which is not a human but a thing, *Jonghyun: Note*. It is also found that most of the headlines are noun phrases with a colon, found in 3 out of 5 data: *Shinee Singer Jonghyun: Kpop Boyband Superstar*, *Jonghyun: Note*, and *Kim Jong-Hyun: Shinee Star*. Colons are mostly used as substantial information, they do not have a big effect on the headline clause and the finding. For example, *Shinee Singer Jonghyun: Kpop boy band superstar*. The participant combined two phrases with a colon and the phrase from the right side is the qualifier. As a qualifier, the phrase only gives more detail to the main phrase, *Shinee Singer Jonghyun*, so it is only embedded in that group and has no independent status as a phrase (Butt et al., 2003).

From these findings, it is concluded that both South Korea's and the United Kingdom's news headlines mainly use Kim Jong-Hyun as the process controller in every action. Thus, the news headline made Kim Jung-Hyun the central attention. It also grabs the readers' interest with the celebrity's name because it could be easily recognized.

#### CIRCUMSTANCE IN THE NEWS'S HEADLINE

The last transitivity element is circumstances. Circumstances was used to show the purpose of the text or kind of text in terms of time, place, condition, reason, comparison, etc. It is usually in the form of propositional or adverbial phrases. The circumstance finding on South Korea's and the United Kingdom's news headline is shown in Table 3.

TABLE 3. Types of Circumstances from News Headlines

Circumstance	South Korea's News Headline (n=8)	United Kingdom's News Headline (n=5)
• Location (place)	3	-
• Cause (reason)	1	2
• No Circumstance	4	3

Table 3 displays two types of circumstances: location (place) and cause (reason) in the news headline. In South Korea's online articles, the dominant circumstance was the location of place. Interestingly, half of the headlines have no circumstances, indicating that circumstances are less important. Meanwhile, in the United Kingdom's news headlines, the majority of headlines have no circumstance, with only two articles having cause (reason) circumstances. Examples of South Korea's and the United Kingdom's news headlines can be seen in Figures 3 and 4.

Singer Jonghyun of Shinee	found dead	in studio
Participant: Goal	Process: Material	Circumstance: Location (place)

FIGURE 3. Location Circumstance from The Korea Herald's Headline

The location of place circumstance is a type of circumstance to enhance or expand the clause to construe the unfolding process by the space or to answer the 'where' question (Butt et al., 2003). This type of circumstance is in the form of a prepositional phrase and a definite spatial phrase. In comparison, from another datum from The Korea Herald, *through kpop scene*, location circumstances have an indefinite and temporal phrase in which the location of the place does not have an exact position or in Halliday's theory, it was called an abstract location (Halliday et al., 2004). The abstract location from *Through Kpop Scene* explained how culture, which is the destination of the actor, effect the goal participant by sending a shock wave. This datum is also a temporal type of circumstance because the phrase does not have a clear limit of the location to focus, which mean it indicates various area such as the music and entertainment industry, or even the culture of K-pop as a whole.

Kim Jong-hyun: SHINee star	dies	amid an unforgiving K-pop industry
Participant: Actor	Process: Material	Circumstance: Cause (Reason)

FIGURE 4. Cause Circumstance from The Guardian Headline

From Figure 4, the circumstance *amid an unforgiving K-pop industry* is classified as a cause of reason circumstance. The circumstantial element of cause construes the reason why the process is actualized (Halliday & Matthiessen, 2004). Furthermore, the circumstance explained the cause of the death of Kim Jong-Hyun, which is the pressure from the K-pop industry, starting from harsh training to limited freedom. All of these lead the K-pop artist to



get depression especially when they are expected to be perfect all the time (Beaumont-Thomas, 2017).

Overall, the finding on South Korea's and the United Kingdom's news headlines could be implied that South Korea's headline used circumstance to mark where the situation happened, meanwhile the headline from the United Kingdom's news media used circumstance to report the reason why the death of Kim Jong-Hyun occurred.

#### REPRESENTATIONAL MEANING

Representational meaning is a process of multimodality which focus on analyzing the image based on its content that contain active and passive participant (Kress & Van Leeuwen, 2020). Findings on the representational meaning of the lead images from both countries' online articles can be found in Table 4.

TABLE 4. Representational Meaning of Lead Image

	<b>South Korea's Lead Image (n=8)</b>	<b>United Kingdom's Lead Image (n=5)</b>
Narrative Process	3	1
Conceptual Process	3	4
Combination	2	-

Table 4 shows that South Korea's lead images are more variative compared to the United Kingdom's. The South Korea's lead images are comprised of three conceptual processes, three narrative processes, and two combine processes of conceptual and narrative. Meanwhile, most lead images from the United Kingdom's online article are conceptual processes. The findings on conceptual process from South Korea's and the United Kingdom's lead images are shown in Figure 5 and 6.

### K-pop idols burdened by schedules, pressure



FIGURE 5. Conceptual Process in The Korea Times Lead Image

Figure 5 displays a conceptual symbolic process with two participants: Kim Jong-Hyun's photograph and flowers as the carrier. The first carrier participant, Kim Jong-Hyun's photograph, in the figure had a purpose to show other people with no action involved or vector by the participant. Kress and van Leeuwen (2020) explain that human participants in symbolic attributive processes usually pose for the viewer, rather than being shown as involved in some action. Hence, the photograph of Kim Jong-Hyun was displayed only to show the viewers. The second carrier participant was the flowers. The flower was a symbol of sympathy and mourning when someone passed away, so both of the carrier participants from the lead image was conceptual of symbolic process of Kim Jong-Hyun's funeral.

### SHINee singer Jonghyun: K-pop boy band superstar dies

18 December 2017



FIGURE 6. Conceptual Process from BBC's Lead Image

Figure 6 displays a conceptual of analytical process. The image was taken with close-up shot and emphasized the participant face. As analytical process, the picture did not have a



vector and it serves to identify a carrier which allows viewers to scrutinize this carrier's possessive attributes (Kress & Van Leeuwen, 2020). Thus, the participant, Kim Jong-Hyun, in Figure 6 was a carrier with some possessive attributes. The possessive attributes were hair, accessories, and clothes. Those possessive attributes shown by the carrier were not ordinary especially in fashion. It implied that the carrier participant is an important person. Also, the background from the lead image in Figure 6 shows brand logos that indicate the photo was taken on a special occasion or event.

Also, the lead images from South Korea's online articles were more complex, especially when its lead image combines narrative and conceptual processes, compared to the United Kingdom's lead images which were more typical, stable, and timeless in essence (Kress & Van Leeuwen, 2020). An example of South Korea's lead image with a combination process can be seen in Figure 7.

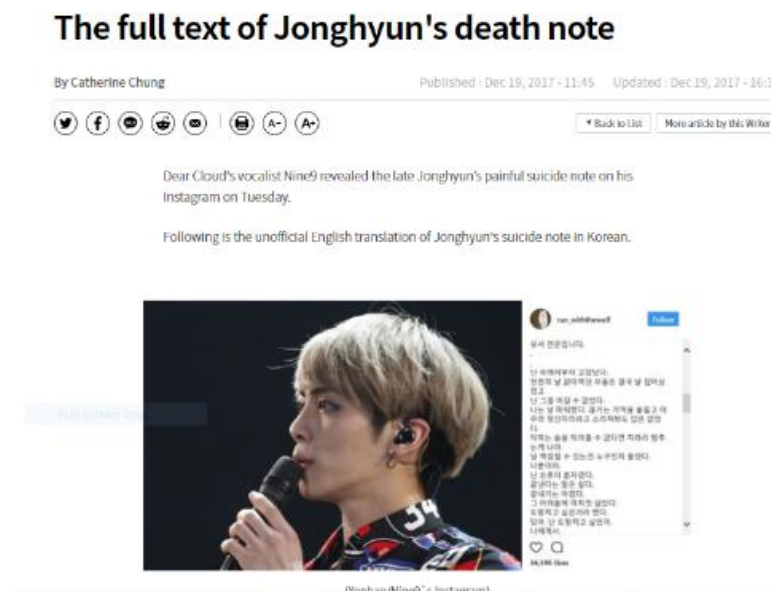


FIGURE 7. Combination Process in The Korea Herald's Lead Photograph

Figure 7 from The Korea Herald shows a lead image displaying a combination of conceptual and narrative processes. The lead image is a screen capture taken from Instagram with two participants divided into the left side, Kim Jong-Hyun, and the right side, Instagram's captions. On the left side, Kim Jong-Hyun's photograph was a narrative process yet it changed from actor to carrier participant because even though the participant was accompanied with a microphone and in-ear monitor, which explain an action process, the context from this picture is the participant not doing any action. In addition, the participant on the right side was recognized as the last note written by Kim Jong-Hyun and it is classified as a verbal participant. Therefore, the process was shown by the relation between Instagram's caption and Kim Jong-Hyun, combining both conceptual and narrative processes.

This study could prove that the relation of headline was less direct towards the lead images. Economou (2006) explained news headline merely had less or no connection with the lead image and headline more like an extension from the lead paragraphs from the verbal text. Nonetheless, it was found that most South Korea's and the United Kingdom's headlines that employ material process had lead image of conceptual process. Meanwhile, headlines that employ noun phrase had a lead image of narrative process. Therefore, the lead image with a

noun phrase headline would identify the content better compared to the lead image with a clause headline.

## CONCLUSION

The multimodal discourse analysis of suicide news reports concluded that South Korea's headlines mostly used a material process that not only gives descriptions of the death of Kim Jong-Hyun but also explains the way society perceives his death. Also, South Korea's headlines use circumstances to mark where the situation happened. Meanwhile, the United Kingdom's news headlines with its dominant process of the material process could provide more information about the background of why did Kim Jong-Hyun take his own life. Furthermore, South Korea's lead image is more complex especially when the article's lead image combines two processes, compared to the United Kingdom's lead images, in which most of them were a conceptual process. Mostly, it represents participants in terms of their class, structure, or meaning. In other words, it is a more typical, stable, and timeless essence.

Yet, this study is limited only to the online article's headlines and lead images. So, it cannot really convey the characteristics of South Korea's and the United Kingdom's English-language online articles on reporting the suicide of Kim Jong-Hyun, since visual and text modes data still shall be included. Therefore, future studies can explore more with the theory on Systemic Functional Linguistics and visual grammar or any other theories depending on the context of the objects of the study to enrich the analysis from these theories.

## REFERENCES

- Beaumont-Thomas, B. *Kim Jong-hyun: SHINee star dies amid an unforgiving K-pop industry* (2021, November). Retrived from <https://www.theguardian.com/music/2017/dec/18/kim-jong-hyun-shinee-star-dies-amid-an-unforgiving-k-pop-industry>
- Bednarek, M., & Caple, H. (2014). Why do news values matter? Towards a new methodological framework for analysing news discourse in Critical Discourse Analysis and beyond. *Discourse and Society*, 25(2).
- Butt, D., Fahey, R., Feez, S., Spinks, S., & Yallop, C. (2003). *Using functional grammar: An explorer's guide*.
- Carmichael, V., & Whitley, R. (2019). Media coverage of Robin Williams' suicide in the United States: A contributor to contagion?. *PLoS ONE*, 14(5), 1–13.
- Cheng, A. T. A., Hawton, K., Lee, C. T. C., & Chen, T. H. H. (2007). The influence of media reporting of the suicide of a celebrity on suicide rates: a population-based study. *International Journal of Epidemiology*, 36(6), 1229–1234.
- Coconuts Jakarta. *Indonesian Fan Says She Attempted Suicide Following Death of K-Pop Star Kim Jong-hyun, Regrets Decision After Receiving Support from Fellow Shawols*. (2021, November). Retrived from <https://coconuts.co/jakarta/news/indonesian-fan-says-attempted-suicide-following-death-k-pop-star-kim-jong-hyun-regrets-decision-receiving-support-fellow-shawols/>
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Economou, D. (2006). The big picture: The role of the lead image in print feature stories. *Mediating Ideology in Text and Image: Ten Critical Studies*, 211-233.
- Ghannam, N. (2011). *Newspaper ideology: a critical discourse analysis of an event published*

- in six lebanese newspapers* (Unpublished master's thesis), University of the Witwatersrand, South Africa.
- Halliday, M. A. K. (1978). *Language as social semiotic The social interpretation of language and meaning* (pp. 1–132).
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2004). *An introduction to functional grammar*. Routledge.
- Ifantidou, E. (2009). Newspaper headlines and relevance: Ad hoc concepts in ad hoc contexts. *Journal of Pragmatics*, 41(4), 699–720.
- Jewitt, C., Bezemer, J., & O'Halloran, K. (2016). *Introducing Multimodality*. London, UK: Routledge.
- Jigsaw Research. (2020). *News Consumption in the UK: 2020. August*.
- Kress, G., & Van Leeuwen, T. (2020). *Reading images: The grammar of visual design*. Routledge.
- Lim, F. V. (2011). A Systemic Functional Multimodal Discourse Analysis Approach To Pedagogic Discourse. *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*, January 2011.
- Majid, A. *Top 50 most popular news websites in the world: Wordle fuels huge New York Times traffic growth*. (2021, November). Retrived from <https://pressgazette.co.uk/most-popular-websites-news-world-monthly/>
- O'Halloran, K. L., Tan, S., Pham, D. S., Bateman, J., & Vande Moere, A. (2018). A digital mixed methods research design: Integrating multimodal analysis with data mining and information visualization for big data analytics. *Journal of Mixed Methods Research*, 12(1), 11–30.
- O'Halloran, & Lim, F. V. (2014). Systemic functional multimodal discourse analysis. In *Interactions, Images and Texts* (pp. 137–154).
- Plemenitaš, K. (2004). Some Aspects of the Systemic Functional Model in Text Analysis. *ELOPE: English Language Overseas Perspectives and Enquiries*, 1(1–2), 23–36.
- Suzuki, S. *K-pop deaths spark fear of copycat suicides in South Korea* (2021, November). Retrived from <https://asia.nikkei.com/Spotlight/Comment/K-pop-deaths-spark-fear-of-copycat-suicides-in-South-Korea>
- Ventola, E., Charles, C., & Kaltenbacher, M. (2004). *Perspectives on multimodality* (Vol. 6). John Benjamins Publishing.
- Victor, J., Koon, J. H. G., Govindaraju, G. M., Ling, T. P., Rajaratnam, U. D., & Fong, Y. L. (2019). Media reporting of suicide: A comparative framing analysis of Malaysian newspapers. *SEARCH Journal of Media and Communication Research*, 11(2), 73–88.
- White, P. R. (2006). Evaluative semantics and ideological positioning in journalistic discourse. *Mediating Ideology in Text and Image: Ten Critical Studies*. Amsterdam: Benjamins, 37–67.
- Yu, Y. (2022). Perpetuating and/or resisting the “leftover” myth? The use of (de)legitimation strategies in the Chinese English-language news media. *Feminist Media Studies*, 22(3), 714–731.