

Exploring the Themes of Horrors of The War, Power and Hegemony in The Manga “Barefoot Gen Vol. 1” in the Light of Dual Coding Theory

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Abstract

This study explores the themes of hegemony, power dynamics, and the horrors of war in the manga “Barefoot Gen Vol. 1” using Allan Paivio’s Dual Coding Theory as a framework. A semi-autobiographical historical manga titled “Barefoot Gen Volume 1” by Keiji Nakazawa is based on the Hiroshima bombing and all the hardships people endured before and after the attack. The research gap that has been identified highlights the lack of previous applications of Dual Coding Theory to Barefoot Gen Volume 1 as well as the lack of acknowledgement of manga as a helpful information source with visually appealing content. Six participants – comprising both manga-experienced and non-manga readers – were recruited using a semi-structured interview technique with deliberate sampling to assess images’ significance in comprehension. A thematic analysis of the provided interviews was conducted using the Braun and Clarke model. The findings highlight visuals’ pivotal role in improving comprehension of narratives related to history or war and show broad consensus regarding the theory’s applicability. By filling in the gaps in the literature, this work advances knowledge about the multifaceted role manga plays in narrating historical events and capturing readers’ attention through a dual-channel cognitive process.

Keywords

Dual coding theory
Exploring the themes
Horrors of the War
Power and hegemony
The Manga

INTRODUCTION

Background of the Manga

Modern manga emerged during Japanese art that coincided with American art between 1945 and 1952, but its origins go back centuries (Toku, 2001). Some believe that the first Japanese manga appeared in the 12th and 13th centuries with a series of frog and rabbit illustrations called Choju-ga (Cartoon Animal Comics) created by some artists (Cohn, 2010). The method of depicting characters and legs to mimic running was initially introduced in these illustrations, and this method is used by many manga manga-ka (manga creators and comic book artists) nowadays. The manga concept was expanded in another illustrated book, Toba Ehon, during the Edo period (1603–1867) (Duus, 2001). However, Santō Kyōden was the first to use the term “Manga” in 1798 when he created the illustrations for the picture book Shiji no Yukikai (The Four Seasons). The renowned Ukiyo-e artist Hokusai’s collection of drawings, Manga Hyakujo and Hokusai Manga, by Aikawa Mina, was republished in 1814 (Kern, 2019). Manga is characterized by its use of adorable and charming characters and its playful nature. However, it is not limited to light-hearted stories and can also be used as a medium for education, including resistance against oppression, political satire, and other darker themes. Much like the graphic novels in the “Western” tradition, manga offers an accessible and artistic means to convey many emotions and explore various themes (Tsai, 2018).

People around the globe read the manga. Each page of manga is divided into several panels. Manga artists can draw anything they desire, including characters and landscapes, and tell the story through sequential art. Stories are depicted in manga through speech bubbles, although the story can be understood well without them (Pang et al., 2014). Regular books or novels differ significantly from manga in the ratio of illustrations. These illustrations are the crucial element of manga. In simpler words, readers could understand the story by looking at the illustrations.

Background of the Author

Born in Hiroshima in 1939, Keiji Nakazawa was just six years old when an atomic bomb destroyed his hometown. He miraculously survived with minor injuries despite being a few kilometres from Ground Zero, but his father, brother and sister were killed in the disaster. Growing up amidst the ruins and

poverty of postwar Hiroshima, he sought comfort in the manga creations of Osamu Tezuka. Inspired by his late artist father, Nakazawa displayed his innate talent for drawing from an early age. He left his education behind to work as a sign painter but continued to submit his cartoons to various manga magazines. Eventually, he moved to Tokyo, driven to pursue a full-time career as a cartoonist. While in Tokyo, he primarily focused on creating manga based on sports and adventure for several years until a perceptive editor encouraged him to share his first-hand experience as a survivor of the atomic bomb. This encouragement resulted in a 50-page autobiographical comic titled "Ore wa Mita" (I Saw It), a poignant portrayal vividly depicting the bombing and its heart-wrenching aftermath. This work deeply moved Nakazawa's editor, leading them to grant him the creative freedom to embark on the monumental graphic novel that would ultimately define Nakazawa's work named "Hadashi no Gen" (Barefoot Gen) (Wolterbeek, 2012).

Barefoot Gen Vol. 1

Famous Japanese manga *Hadashi no Gen*, popularly known as *Barefoot Gen Vol. 1*, narrates the tale of a young boy named Gen and his family who resided in Hiroshima. Gen and his family had lived in the same city that was hit by the atomic bomb on August 6, 1945. The manga is a haunting and often nightmarish tale of survival after one of the most devastating events in human history. This story is even more potent because it is semi-autobiographical, as the author, Keiji Nakazawa, was a schoolboy in Hiroshima during the bombing and lost family members in the blast. The manga starts in 1945 in Hiroshima, where the protagonist, Gen, a six-year-old, resides with his family. His family members were his father, mother, an older sister, and a younger brother. At the time of the bombing, Gen was at school. He takes shelter behind a big wall and survives, then hurries home through the devastated city to look for his family. While running towards his home, he encounters numerous horrifying scenes of death, devastation, and suffering that shatter him. Upon reaching home, he uncovers that his father, brother, and sister are trapped beneath the rubble of their collapsed house. His mother is in the street, frantic to assist them, yet she and Gen cannot rescue them before the flames engulf them (Nakazawa, 2010).

Thus, the brutality of war, trauma, and all the suffering are mentioned vividly in this manga. *Barefoot Gen* is not only a graphic and vivid portrayal of the bombing but also a powerful indictment of Japanese militarism and propaganda. The first volume depicts Gen's father getting arrested and abused while in custody for expressing anti-war sentiments. Consequently, Gen and his siblings experience challenging times at school. It is a must-read manga for everyone to learn about the history of nuclear warfare and its impact on society and acknowledge that war should not be romanticized, but avoided at every cost. It is worth noting that *Barefoot Gen* is the first full-length manga to be translated into English. Moreover, this manga has been translated into multiple languages and adapted into various media formats, contributing to its widespread reach (Nakazawa, 2010).

Significance of the Study

In this study, the concept of manga is introduced to show how visuals with texts can help readers understand a concept more vividly. Manga, with its straightforward narratives, unique artistic expressions, and fully developed characters, provides a medium through which vital subjects like history, education, and politics can be presented in a manner that is both uncomplicated and engaging. This approach captivates the reader's imagination while simultaneously educating them on a diverse array of subjects.

Research Objectives

- To explore the impact of war-induced horrors, power dynamics, and hegemony in *Barefoot Gen Vol. 1* on individuals, utilizing the principles of Dual Coding Theory (1971) as a framework.
- To implement Dual Coding Theory (1971) on the themes of horrors of war, power, and hegemony present in *Barefoot Gen Vol. 1*, and to identify readers' understanding through visuals.

Research Questions

- How does the manga *Barefoot Gen Vol. 1* portray the impact of horrors of the war, power and

hegemony on individuals as supported by the principles of Dual Coding Theory (1971)?

- How do visuals play a vital role in understanding a text in the light of Dual Coding Theory (1971)?

LITERATURE REVIEW

Explanation of the Core Arguments of the Concept

The “Dual Coding Theory” was first presented in 1971 by Allan Paivio of the University of Western Ontario (as cited in Paivio, 1991). It is a theoretical framework that says that verbal and nonverbal (visual) are the methods for expressing and analysing knowledge and information that are both different but linked systems (Abbott & Forceville, 2011). It also states that the information and expertise encoded using verbal and nonverbal methods are more likely to be easily remembered, understood and quickly recalled rather than encoded using only one of these methods. There can be many benefits of using graphics alongside written texts in the education system; for instance, this way of teaching can help the students to understand the topic easily and more quickly, increase student engagement, help to enhance memory retention, help make education more exciting and attractive to students and improve overall comprehension (Paivio, 1991).

The Dual Coding Theory (1971) explicitly originated to acknowledge that visuals with texts could enhance and improve the students’ learning. Pictures offer more precise information about the topic, making it more straightforward and understandable for students to grasp and recall. This theory allows students to recall the data and information better because the data, encoded in the verbal and visual methods, will be captured in long-term memory. Dual Coding Theory (1971) can also help students quickly strengthen their memory and comprehend the text; it helps decrease the mental load needed to acquire new information because graphical representations can help reduce the burden from the verbal system. For instance, a graphical representation of the water cycle might enable students to learn and comprehend how water flows all over the globe (Paivio, 1991).

Relevance of the Theory

The concept of Dual Coding Theory (1971) can be determined through the research of cognitive psychologist Allan Paivio (Sadoski & Paivio, 2013). He mentioned that knowledge is processed through two brain systems: one for verbal or linguistic representation and the other for visual representation. Furthermore, Dual Coding Theory (1971) proposes that one can easily understand and comprehend information through verbal and visual methods. In this study, the Dual Coding Theory (1971) by Allan Paivio will be applied to the manga “Barefoot Gen.” The concept of manga is brought forward to show how visuals with texts can help readers understand a concept more vividly. In the following manga, there are texts along with visuals, which provide a better understanding of the text, i.e., historical events; students might get a better experience of history with visuals rather than text only (Sadoski & Paivio, 2013).

The theory of Dual Coding (1971) suggests that information is processed through two distinct cognitive channels: verbal and non-verbal. It implies that improving learning and memory recall requires combining verbal and visual representations. To maximize instructional strategies and cognitive processes, this theory emphasizes the value of using both textual and visual information. The theme of the horror of the war explains how a war brings disastrous conditions with it, and the aftermath of the war is far from what people claim a war brings, i.e., peace (Sadoski & Paivio, 2013). Furthermore, the theme of power and hegemony highlights the bitter reality of a society where the dominant voices force their worldviews on the submissive and suppress their voices. In Barefoot Gen Volume 1, these three themes are vividly portrayed through visuals and texts to enhance readers’ understanding of the history more vividly.

The research paper prepared by Murakami and Bryce (2009) explores an underexamined subset of educational manga, which entertains while imparting real-world knowledge through visual narratives. Schodt (2011) notes that Japanese manga relies on minimal text. Despite its popularity, educational manga’s complexities remain understudied. This study focuses on Ishikawa Masayuki’s Moyashimon:

Tales of Agriculture, illustrating how manga capitalizes on curiosity to cover diverse topics. Manga can be classified into informative and educational categories, with the former simplifying complex subjects like science and history through visuals. Notably, Ishinomori Shōtarō's *Manga Nihon Keizai Nyumon* (1986) pioneered adult educational manga by explaining economic concepts simply, becoming a bestseller. Manga captivates readers by engaging challenging subjects, often prioritizing educational content over literary quality. Another type combines entertainment with precise information, effectively merging education and fun. This study analyses how the fusion of visual and linguistic elements in manga enhances comprehension, enriching the learning experience.

Research conducted by Leach (2018) explores the emotional consequences of confusion through stories conveyed in manga, highlighting its ability to communicate accuracy and empathy. The study examines four Japanese manga that reflect societal conditions during and after World War II: *Barefoot Gen*, *Onward Towards Our Noble Deaths*, and *Town of Evening Calm* alongside *Country of Cherry Blossoms*. Manga reframes past traumas, allowing readers to engage with history through its blend of text and imagery, fostering empathy uniquely. The dehumanization of WWII victims makes these narratives particularly poignant. The onset of war was marked by Japan's invasion of Manchuria in 1931 and the bombings of Hiroshima and Nagasaki in 1945. Manga provided a vital outlet for suppressed political frustrations during the post-war era. Keiji Nakazawa's *I Saw It* (1972) marked a shift toward transparency in depicting the bombings and questioning accountability. The medium's personal and accessible style, coupled with rich symbolism like sweat drops for worry and cherry blossoms for death, enhanced reader engagement and facilitated a deeper understanding of war traumas, effectively circumventing post-war censorship and offering a visual narrative unattainable through text alone.

The research of Muttaqien et al., (2016) investigated the effectiveness of manga in improving vocabulary among eleventh-grade students through Classroom Action Research. The study revealed two key findings: students showed high engagement and enthusiasm for learning with manga, transforming previously reserved participants into active learners. Additionally, the teacher identified specific groups needing extra support. Different from American comics, Manga has evolved into a narrative medium addressing various themes, enhancing reader participation and narrative pacing. Its global appeal and visual storytelling facilitate comprehension and make it accessible to non-Japanese audiences. The study involved two cycles, each with preparation, execution, observation, and reflection stages, resulting in improved vocabulary scores—from a mean of 60.17 in the first cycle to 68.3 in the second. Observations noted increased student attention and comfort in providing feedback. A questionnaire showed a positive motivation score of 84.85, indicating that manga improved vocabulary and enhanced the overall teaching and learning process.

de Quay (2016) in his research explores the integration of manga into traditional literature teaching, specifically focusing on Shakespeare's works. Conducted with upper-grade students, the study demonstrates that manga can effectively enhance the educational experience. It provides a series of assignments that familiarize students with manga and *Macbeth*, including character development and image reviews. The guide emphasizes balancing imaginative and critical thinking while maintaining attention to language and detail. Findings suggest that manga makes Shakespeare more accessible, potentially rekindling students' interest in literature. The study includes lesson plans, a questionnaire assessing student opinions, and reveals that manga fosters greater engagement and analytical curiosity. While the results are promising, including increased enthusiasm for *Macbeth*, limitations such as a small sample size and insufficient survey questions are noted. The author advocates for further research to understand manga's role in teaching literature and its potential drawbacks, ultimately promoting its use as a valuable educational tool.

Walsh et al., (2021) investigate how comic-style images can effectively communicate scientific ideas and enhance memory retention. Using the PEW Research Centre Science and Technology quiz and an updated CLOZE method to assess English language competence, the study finds that graphic elements, particularly explanatory agents, significantly improve immediate and short-term recall of facts. The research involved 310 participants aged 18-79, exploring five formats of scientific information

presentation: textual only, images with text, animations with text, images with explanatory bubbles, and animations with explanatory bubbles. Findings indicate that preferences for certain formats correlated with improved memory retention, though no consensus emerged among participants. The study emphasizes the potential of using illustrative agents, common in manga, to enhance understanding of scientific concepts. A randomized controlled trial methodology was employed, gathering data on participants' confidence, preferences, and demographics, while controlling for biases related to prior knowledge. The authors recommend further research into the long-term effects of graphic support on memory retention.

Research Gap in the Literature

Dual Coding Theory (1971) by Allan Paivio has not been applied to the manga Barefoot Gen until now to highlight how the horrors of war, power, and hegemony can be better understood by adding visuals to the text. Furthermore, not a single piece of research done in Pakistan acknowledges the manga as a vital source of information that provides knowledge and simultaneously holds the readers' attention through its captivating visuals.

METHODOLOGY

This empirical qualitative research employs a semi-structured interview method to explore the perceptions and experiences of six participants. The sample comprises three individuals who possess substantial exposure to manga and have actively engaged with this medium, while the remaining three participants have no prior exposure to manga but have experience with novels consisting solely of text. It is important to note that the sample is gender-balanced, with three male and three female participants. This deliberate inclusion of male and female perspectives aims to capture a comprehensive understanding of the research phenomenon, ensuring a diverse range of insights and perspectives are considered in the analysis. The semi-structured nature of the interviews allows for flexibility in exploring participants' nuanced thoughts and experiences, contributing to a rich qualitative data set for analysis.

This research utilised the framework developed by Kallio et al., (2016) for creating a qualitative semi-structured interview guide. According to Kallio et al., (2016), a few steps involve gathering appropriate data through semi-structured interviews. These include determining that semi-structured interviewing is the most suitable method for gathering data, retrieving and applying prior knowledge, creating and pilot testing a draft interview guide, and presenting the final interview guide.

Sampling

This study used purposeful sampling; a non-probability sampling technique widely used in qualitative research. This approach involves selecting participants according to characteristics or experiences from their lives that are relevant to the research question. The aim is to find and involve individuals who can offer adaptable and valuable information to enhance research outcomes. Purposeful sampling is practical when finding people or groups with knowledge, abilities, or experiences related to a research question.

Thematic Analysis

The thematic analysis model presented by Clarke and Braun (2017) is used for data collection and analysis to achieve this research's aim. The method for thematic analysis is a stepwise, iterative approach encompassing six key stages. The first step is to become familiar with the data before analysing the data. In this research phase, interviews are conducted, and responses are collected by answering the given questions. Based on the information provided, preliminary comments are made. In the second step, the data is coded. Sections are highlighted with tags and codes describing their content. In the third step, themes are created. Codes are examined to identify patterns among them, and these patterns are used to generate themes. The themes are examined in the fourth step. Identifying and naming the themes is the fifth step. The final stage involves writing a report.

RESULTS & FINDINGS

Allan Paivio's Dual Coding Theory (1971) aims to balance the importance of verbal and nonverbal processing. The main idea of this theory is to aid readers in understanding the content by offering two distinct verbal and visual representations. When accompanied by visuals, a spoken description can become more tangible and offer two perspectives on the conveyed concepts. It also emphasizes that emotional content in images can establish connections with the language that goes with them. Therefore, emotionally charged images can elicit feelings that improve information encoding and storage. Focusing on these principles of Dual Coding Theory (1971), the interviews were conducted to highlight the importance of visuals along with text when reading the complex themes associated with history, like horrors of war, power and hegemony.

During interviews, participants were asked if they believed that texts and visuals are essential when reading historical-based themes like horrors of war, power and hegemony. The respondents were highly in favour of both content playing an equally important part, and visuals enhanced their understanding even more. One respondent mentioned,

It is better that both visual and written content should be together so that it would be more realistic to the person viewing or reading about the horrors of war, power and hegemony.

In support of this principle of Dual Coding Theory (1971), there were many other responses; for example, a respondent stated,

These are both separate identities that complement each other if they are with each other.

Furthermore, individuals were provided with manga pages that focused on the themes of horrors of the war, power and hegemony. After reviewing those pages, participants were asked to describe if they would have felt the same emotional impact if it had been just plain text without visuals. This question focused on the principle of Dual Coding Theory (1971), which states that emotions can be enhanced if visuals are provided with the text part. In addition, to get better clarity regarding this question, participants were provided with the text-only part of the given manga pages as well, and then they were asked to compare and contrast their emotional impact of the text-only part with the manga pages that had visuals with text supporting the extracted themes. Thus, many respondents agreed that the visuals enhance their emotions and help them understand these themes more vividly. A respondent shared,

Yes, manga because it has visuals, it can make it accessible to people who might not be interested in reading a bland text of history.

One respondent mentioned that after reviewing the manga pages consisting of horrors and tragedies related to the war that,

If this were presented to me in the text form, I wouldn't have visualized it in the same manner with the same intensity. It shows how his younger brother is stuck under the rubble and begging him not to go. I wouldn't have imagined it this way, but the visuals completely sparked an explicit perspective, and because of that, I felt what they had to go through.

Another respondent opined:

I don't think so I would have felt the same emotions if I were reading just the text of this particular scene describing the bombing and its aftermaths this vividly.

When answering the questions focusing on the theme of power and hegemony leading to oppression and dominance, one of the respondents asserted,

These visuals make your emotions more intensified. With these pictures, I got a better idea of how Gen's father is being treated by someone who is above him or have some authority.

In addition, the agreement was further observed in another respondent's response, who mentioned,

The images impacted my emotions more than the text alone like it shows how that police officer hit him just because he holds the power and is trying to impose his ideas on him....

Along with these responses, there was also a slight variance of opinion observed in the answers of those participants who were unfamiliar with manga and had a first exposure to it when they were being interviewed. Two participants claimed that their imagination was much more robust, and they could visualize the scenarios without the given visuals. For instance, a respondent said,

I think if I had read the exact text in a traditional book without any visuals, I would have felt it more intensely because I am very good at creating scenarios in my mind.

However, their opinion changed when they were further interviewed as they examined more manga pages related to the historical themes. Thus, in the end, they agreed that if visuals are presented to explain the historical events and complex themes like horrors of war, power and hegemony, they can be better understood through visuals and the text. The same respondent, in his further interviewed questions responded,

It can be easier for many to read and understand history kind of complex topics.

Visuals will add more to the sentiments if the tragedy of war is describe.

The literature review places the research in context by examining similar themes in the educational manga, the emotional fallout from the war portrayed in the manga, and the potential of manga as a vocabulary-building tool. It also points out a study gap in the Dual Coding Theory's application to "Barefoot Gen Volume 1" and the under appreciation of manga's educational usefulness in Pakistan.

Discussion

This research explained the study's significance, highlighting how manga, by combining text and images, is an effective tool for addressing critical issues like politics, history, and education. The goals were well-defined, particularly examining how recognized themes affected the characters in "Barefoot Gen Vol. 1". Almost every respondent interviewed in this study agreed with the principles of Dual Coding Theory (1971). Respondents agreed that the visualizations provided in the manga Barefoot Gen Vol. 1 add depth to the text and the comprehension of extracted themes when provided with the complex themes related to the horrors of war, power and hegemony. Thus, this finding supported this thesis's second question, "How do visuals play a vital role in understanding a text in the light of Dual Coding Theory (1971)?" A few participants had some objections, but when further interviewed and given additional manga pages to review focusing on the themes of tragedies of war and misuse of authority, they eventually agreed that manga helps understand the bombing of Hiroshima because of the added visuals with text. Secondly, the participants' emotions were also more intensified and heightened when they were asked to read the Barefoot Gen Vol. 1 pages, which consisted of extracted themes of horrors of the war, power, and hegemony. This impact of visuals along with text supports the principle of Dual Coding Theory (1971) that focuses on the idea that individuals' emotional response is more likely to be intensified when provided with the visuals along with the text. Thus, this finding supports the first question of our thesis, "How does the manga Barefoot Gen Vol. 1 portray the impact of horrors of the war, power and hegemony on individuals as supported by the principles of Dual Coding Theory (1971)?"

To conclude, this study highlights the importance of having visuals with texts, and to support this aim, Dual Coding Theory (1971) has been implemented on the themes of horrors of the war, power and hegemony present in Barefoot Gen Vol. 1, a semi-autobiographical historical manga. This study has used an empirical qualitative approach, collecting and analysing data using the Braun and Clarke (2006) theme analysis model. Six individuals were interviewed in a semi-structured manner to obtain data. Three were unfamiliar with manga but had read novels consisting of text only, while the others were experienced manga readers. In this paper, we have demonstrated that the results for the perceived influence of manga were as expected; participants showed favourable opinions toward the use of the importance of visuals while studying complex topics like history. Participants agreed that language

and images are equally important when discussing historical subjects. Results aligned with the Dual Coding Theory (1971), indicate that combining spoken and visual components improves understanding and affective involvement. The colour-coded themes and coding sheet gave the data analysis a clear framework. The results report demonstrated that all participants agreed that graphics had a valuable role in helping people comprehend the horrors of war and the power dynamics portrayed in “Barefoot Gen Volume 1”. Visuals accompanying the text stimulated stronger emotional reactions, supporting the ideas of Dual Coding Theory which states that individuals are more likely to have intense emotional response to the idea if that idea is presented with visuals along with text.

CONCLUSION

This thesis explored manga and its usage to enhance the understanding of text with visuals while studying complex topics like history. The term “manga” refers to a broad category of comic books and graphic novels originating in Japan. People around the globe read the manga. In simpler words, readers could understand the story by looking at the illustrations. This method educates the reader on a wide range of topics while also capturing their imagination. The main idea presented in this manga is the bombing of Hiroshima and the suffering of people before and after the bombing. Dual Coding Theory’s (1971) theoretical framework by Allan Paivio has been applied to demonstrate the value of both text and images for analysing and comprehending the selected themes of horrors of war, power and hegemony from the manga “Barefoot Gen Volume 1”. Overall, this study adds to the growing body of knowledge regarding text and images’ role in supporting sophisticated comprehension of complex historical narratives while shedding light on the potential of manga as an instructional medium. The effects of the study go beyond the manga that was examined; more research on the dynamics of visual literacy in educational situations worldwide is encouraged. This study represents a significant step towards adopting varied media for information distribution, which is becoming increasingly necessary as society changes.

Recommendations

Although this study focuses on Barefoot Gen Vol. 1, future investigations may examine the potential application of Dual Coding Theory (1971) to other manga titles that delve into themes related to politics, Feminism, or Marxism. A more comprehensive grasp of how visual components improve the comprehension of different narrative genres may result from investigating a wide variety of manga. Furthermore, future research could broaden the cultural scope by performing cross-cultural analyses, as there has yet to be any previous investigation on manga as a source of information in Pakistan. It would be possible to determine whether the influence of visuals on comprehension is culturally specific or universal by comparing reader reactions to manga in various cultural contexts. Moreover, scholars may also investigate the potential effects of manga integration on education regarding formal curriculum. It may be beneficial for educators and curriculum designers to look into how manga, as a visual narrative medium, affects learning outcomes and engages students in learning environments.

Limitations and Future Directions

Due to time constraints, eight questions were posed to each of the six interviewed participants. Thus, this research is a snapshot in time, capturing participants’ immediate reactions. A longitudinal approach might offer a more complex insight into how the impact of visuals evolves over time and whether it contributes to a more durable understanding. Analysing readers’ comprehension over an extended period may provide light on how visual aids help people retain and reinforce their knowledge. Notwithstanding these limitations, the work lays the groundwork for further investigation. It provides a point of departure for researchers who wish to delve deeper into the intricate relationship between Dual Coding Theory (1971), manga, and understanding themes related to hegemony, power, and war.

Competing Interest

The authors reported no potential conflict of interest.

Authors' Biography

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