MULTIMODAL AS A NEW PERSPECTIVE IN PRAGMATICS IN THE DIGITAL ERA: LITERATURE REVIEW

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Abstract. The language context in the study of pragmatics in the digital era has changed from initially using linguistic aspects to now using audio and visuals. This research aims to collect and analyze several sources related to multimodality as a new perspective in pragmatic analysis in the digital era. The research design used is a literature review by collecting various sources from books and relevant scientific articles. Based on the books and articles collected and reviewed, it can be concluded that the research results show (1) The multimodal concept is a theory that observes the use of various modes by individuals to communicate and express themselves, which involves writing, gestures, body posture, eye gaze, font choice and colours, images, videos, and interactions between individuals. (2) Multimodal characteristics include multimodality and its interactions, the role of technology, visual modality, social and cultural context, analysis of social interactions, multimodal literacy skills, semiotic analysis, and case studies. (3) The multimodal aspect includes the giving and creation of meaning, the multiple modes involved, and multimodal practices. (4) Multimodal pragmatics is a new perspective in pragmatic analysis that examines linguistic or verbal modes and other modes, such as audio and visual, which are used simultaneously to communicate with each other. Thus, pragmatic studies using a multimodal perspective are important because understanding a speech analyzes linguistic aspects and pays attention to multimodal visual and audiovisual aspects to strengthen the meaning or purpose of the speech act.

Keywords: Multimodal, Pragmatics, Digital Era.

INTRODUCTION

Pragmatics studies the relationship between language and language users (Yule, 2014). Pragmatics is a field of study that reveals the complexity and dynamics of language use in communicative contexts. Through pragmatics, we can understand that meaning is not always limited to grammatical structure but is also influenced by social and situational aspects (Brown & Williams, 2022). Learning pragmatics is learning about communication. In communication, messages are conveyed between the speaker and the speech partner (Badriyah & Antono, 2022). Therefore, pragmatics learning aims to improve students' ability to communicate orally and in writing. Pragmatics is a field of study that reveals the complexity and dynamics of language use in communicative contexts. Through pragmatics, we can understand that meaning is not always limited to grammatical structure but is also influenced by social and situational aspects (Brown & Williams, 2022). However, communication in the digital era only sometimes uses linguistic aspects alone; it can also use visuals and even audiovisuals. The language context in pragmatics studies in the digital era has experienced such changes. This happens because the current communication situation uses virtual media (Huang, 2022).

Learning in the 21st century, or the digital era has experienced significant changes compared to learning methods in the 20th century and previous times. Rapid technological developments and changes in the physical environment have significantly impacted how humans exist, interact, relate, and learn. In particular, if a learning approach utilizes multimedia technology, it will stay caught up in its development compared to others. In line with this opinion, according to Murti (2015), in the 21st century, learning is increasingly crucial in ensuring that students can learn and innovate, master technology and information media, and function and adapt using life skills. The various competencies students require in the current era of globalization are often referred to as 21st Century Skills, better known as 21st-century learning.

Multimodality is a theory that looks at the many different modes that people use to communicate with each other and to express themselves. Studying pragmatics using a multimodal

perspective aims to explain several modes used in the communication process (Forceville, 2014; Braun, 2016). Language, as a multimodal element, has four types of context that contribute to the meaning of an utterance. These four contexts are now referred to as cybertext. The four cybertext contexts are visual context, spatial context, gestural context and aural context. The visual cybertext context refers to graphic manifestations, colours, and shapes contributing to linguistic meaning. In various textbooks, for example, colouring and drawing are now essential to creating and displaying (Rahardi, 2020; Orsini-Jones et al., 2019).

In the digital era, linguistic aspects are minimal, while visual aspects dominate. Visual context has dominated the meaning of cybertext. Furthermore, spatial cybertext context refers to the position, location, or space that makes the meaning of linguistic entities straightforward and easy to understand. When someone gets a message or call, there is no need to think anymore about where the message's sender is and the caller's position. Whether he was at home or abroad, even in an unknown place, people no longer needed to care. So, consideration of context and its aspects related to space dimensions has significantly shifted (Allan & Jaszczolt, 2012). The language aspect in the pragmatic analysis is predominantly expressed through the oral aspect. It cannot be separated from the aural aspect. These aural aspects have been linked with audio-visual to present a more substantial and complex intended effect. Everyone is willing to buy sophisticated audio-visual equipment because they believe that the oral aspect cannot be separated from the aural aspect, even audio-visual ones (Anchimbe & Janney, 2011).

The presence of multimodality in pragmatic analysis is necessary because understanding speech acts not only uses linguistics but also pays attention to multimodal aspects in the form of visuals and audiovisuals to strengthen the meaning or objective of the speech act intended to be conveyed. The multimodality dimension in today's digital era is critical in understanding the meaning of speech (Rahardi, 2022). The multimodal analysis considers how linguistic and visual choices meet discourse goals, audience and context and how they organize and develop information and ideas (Freyn & Ed, 2017; Wiranegara, 2017). This research is important because 21st-century communication is not only limited to linguistic aspects but can also be done through images and visuals. Therefore, this research aims to collect and analyze several sources from national and international journals and books related to multimodality that can be integrated as a new perspective in pragmatic analysis in the digital era.

RESEARCH METHOD

This research design is qualitative research in the nature of a literature review by examining trusted sources either in written form or in relevant digital format without going directly to the field. A literature study is a series of activities or methods for collecting data, be it library data, readings and many more, which function to manage research materials in the future (Zed, 2008). In agreement with this, Darmadi (2011) stated that literature studies determine the research topic and problem formulation. Literature review studies collect data or synthesise sources related to research topics, including journals, books, documentation, the Internet and libraries (Nursalam, 2016). The preparation of this article went through several stages, including selecting library sources, tracing library sources, reading library sources, and recording essential points and literature review presentations. The data presented is in the form of words that require processing to make it appear concise and systematic. Researchers collected articles from national and international journals with the keywords pragmatic studies in the digital and multimodal era. Of the articles collected and reviewed, 15 were from international journals, and seven were from national journals. Apart from that, the author also took sources from 10 international books and two national books. The selected articles and books are closely related to this research, which are then examined in the discussion.

RESULT AND ANALYSIS

1.1 Multimodal Concept

Multimodality is a theoretical concept examining the various modes individuals use to communicate and express themselves. In this context, multimodal texts refer to texts that combine several modes or genres of representation, integrating print elements, visual images and design

(Groenke, 2012). Its relevance is related to technological advances and the availability of multimedia composing software, which allows people to efficiently utilize various modes in art, writing, music, dance, and everyday interactions. Fashion is defined as communication channels recognized by cultures, such as writing, gestures, body posture, eye gaze, font and colour choices, images, videos, and interactions between these elements. Although many of these modes have always existed, they have only sometimes been recognized as legitimate or culturally acceptable communication or expression. The multimodality approach emphasizes that human communication involves a variety of modes, and to fully understand individuals, it is necessary to observe and acknowledge the diverse modes they use. Multimodality theory is reflected in writings and discussions related to communication theory, linguistics, media literacy, visual literacy, anthropological studies, and design studies (Jewitt & Kress, 2003).

Multimodal learning environments include diverse modes of representation that enable information processing through multiple sensory channels, including visual, auditory, and kinesthetic modalities (Moreno & Mayer, 2007). Multimodal interaction refers to simultaneously using multiple modes of communication, such as speech, gestures, facial expressions, and body movements, in interactions between humans and between humans and computers (Oviatt, 2003). In multimodal pattern recognition, combining information from different sources, such as images, speech, and text, can improve classification and recognition performance (Baltrušaitis & Morency, 2018). Multimodal learning experiences in education involve integrating various media and technologies, providing students with various ways to engage and understand learning material (Mayer, 2009). In the multimodality perspective of pragmatic analysis, language is not a sign maker or sign itself but rather the result of interactions between communicators and recipients who use various modal sources. Intermodal relationships, such as between text and image, sound and film, or design and article, are analyzed not as constellations of signs but as complex discursive units structured with specific intentions for specific audiences or individuals (Bucher, 2017).

Based on the previous description, it can be concluded that multimodality is a theory that observes the use of various modes by individuals to communicate and express themselves. This mode involves various communication channels such as writing, gestures, body posture, eye gaze, choice of font and colour, images, videos, and individual interactions. A multimodal approach pays attention to the complexity of intermodal interactions, recognizing that to understand a person entirely, it is necessary to observe and recognize the diverse modes they use in communication and expression.

1.2 Multimodal Characteristic

According to Kress & van Leeuwen (2001), multimodality has seven main characteristics, including (1) Multimodality, which combines various forms of communication such as verbal (words), visual (images and layout), audio (sound), kinesthetic (body movements), and other modalities. Multimodal pragmatics examines how these modes interact to form meaning. (2) Visual design and layout are important because the arrangement of information in text or images can affect message understanding. (3) Context and culture are significant in multimodal communication because they can influence message interpretation. (4) Visual modality focuses on visual elements such as image analysis, graphic design, and how visual elements interact with words. (5) The role of technology is a key element in modern multimodal pragmatics, with attention to how digital technology influences communication and message understanding. (6) Social analysis involves multimodal pragmatics, including studying how social hierarchy and power are reflected in multimodal communication. (7) Visual awareness and multimodal skills emphasize the importance of visual literacy and skills in using various modes of communication in contemporary society. Kress views multimodal pragmatics as an understanding of communication that involves more than just words, encouraging speakers and interlocutors to analyze how various modes of communication interact to form meaning in diverse contexts.

Based on Norris (2004), there are eight characteristics of multimodality, namely (1) Multimodality, which emphasizes various ways of communication such as verbal, visual, audio, kinesthetic, and other modalities. (2) Interaction mode, where various modes interact to form a complete meaning in communication. (3) Social and cultural context, integrating the role of culture and social context in forming meaning. (4) Semiotic analysis, using a semiotic approach to analyze multimodal communication by examining the signs, symbols and meaning contained. (5) Media criticism involves understanding how media messages are conveyed in specific ways and their

impact on audiences. (6) Social interaction, as an integral part of multimodal communication, by understanding the role of social interaction. (7) Case studies and detailed analysis used to explore multimodal communication processes in specific contexts, supporting understanding of meaning in specific situations. (8) Multimodal literacy skills, emphasizing the importance of the ability to understand and produce messages using various communication modes. Norris explains his contribution to the understanding of multimodal pragmatics by exploring the contribution of different modes of communication to forming meaning in everyday situations and diverse sociocultural contexts.

A synthesis of the opinions of Kress & van Leeuwen (2001) and Norris (2004) produces a more complete formulation of multimodal characteristics. These characteristics include (1) Multimodality and its interactions. It involves various ways of communication, such as verbal elements (words), visuals (images and layout), audio (sound), kinesthetics (body movements), and other modalities that interact with each other to form meaning. (2) The role of technology. It is a key element in modern multimodal pragmatics, focusing on the influence of digital technology on communication and understanding media messages in specific ways, as well as their impact on audiences. (3) Visual modality. This includes image analysis, graphic design, layout, and how visual elements contribute to conveying a message. (4) Social and cultural context. It consists of social context and the role of culture in the formation of meaning, which influences the interpretation of messages in multimodal communication. (5) Analysis of social interactions. Investigates how hierarchy, power, and social interaction roles are reflected in multimodal communication. (6) Multimodal literacy skills. Ability to understand and generate messages using various modes of communication. (7) Semiotic analysis. It uses a semiotic approach to analyze multimodal communication, including signs, symbols and contained meaning. (8) Case studies and detailed analysis, used to explore multimodal communication processes in specific contexts, provide a deeper understanding of how meaning is formed in specific situations.

1.3 Multimodal Aspects

The multimodal aspect is how a person uses various modes of representation, such as language, images, sounds, and body movements, to convey meaning in a particular context. This aspect is important in multimodal communication because it allows one to create more complex and complete meaning than is possible using a single mode of representation alone. According to Kress and Leeuwen (2001), multimodal pragmatic aspects are divided into four: (1) Mode is a system of signs and symbols used to convey meaning. In multimodal communication, modes can be verbal language, sign language, images, sounds, or body movements. (2) Composition is the way modes of representation are arranged in space and time. Composition can influence the meaning produced by multimodal communication. (3) Coding is the process of giving meaning to modes of representation. Codes can be cultural codes, social codes, or personal codes. (4) Interpretation is the process of giving meaning to multimodal communication by the message's recipient. Interpretation can be influenced by context, experience, and knowledge of the message recipient.

According to James Paul Gee (2003), multimodal aspects in pragmatics are divided into four, including (1) Design, namely planning and creating multimodal communication. (2) Production, namely the process of creating multimodal communications. (3) Interpretation, namely the process of understanding multimodal communication. (4) Learning is the learning process from multimodal communication. Furthermore, Jewitt (2009) differentiates multimodal aspects in pragmatics into three (1) Multimodal meaning-making is the process of creating and understanding meaning in multimodal communication. (2) Multimodal resources, such as verbal language, sign language, images, sounds, and body movements, are used in multimodal communication. (3) Multimodal practices are used in multimodal communication, such as how we use multimodal resources to create and understand meaning. These aspects of multimodal pragmatics can be used to analyze various multimodal communications, such as advertising, films, comic books and social media. By understanding these aspects, we can better understand how meaning is created and interpreted in multimodal communication. Apart from that, these aspects of multimodal pragmatics can also be used to develop multimodal communication skills.

Based on the explanations of the three experts above, the author synthesizes that the multimodal aspect includes (1) Creating and giving meaning to several modes of communication. (2) Some modes involved in the communication process can be verbal language, sign language,

images, sounds, or body movements. (3) Multimodal practices include message interpretation and learning that can be drawn from multimodal communication.

1.4 Multimodal as New Perspective in the Digital Era

Multimodal pragmatics consists of modes of communication that combine verbal language, body movements, facial expressions, and visuals to convey meaning and create shared meaning in human interactions (Smith & Johnson, 2018). Context plays a vital role in multimodal communication because it provides the social, cultural and environmental background that supports a more accurate process of interpreting meaning (Garcia & Lee, 2019). Case studies show that multimodal communication can lead to different interpretations of meaning by individuals from different cultural backgrounds, highlighting the importance of cross-cultural awareness in today's global communication (Chen et al., 2020). Technology in multimodal communication has changed how humans communicate and convey messages. Social media and digital communication platforms have enabled multimodal recognition in text, images, and videos (Williams & Brown, 2021). Studies on multimodal pragmatics highlight the importance of understanding human communication as a unity involving verbal language, body movements, facial expressions, and images to form shared meaning in social interactions (Jones & Smith, 2022). In multimodal pragmatics, messages can be conveyed more effectively because combining verbal and non-verbal language helps create more prosperous and comprehensive meaning (Garcia et al., 2023). Multimodal communication often requires deeper interpretation because messages are not only limited to words but also involve body expressions and visual language (Chen, 2021).

Studying multimodal phenomena from a pragmatic perspective aims to explain multimodal meaning or create a pragmatic model for analyzing multimodal communication (Forceville, 2014; Braun, 2016). The study of pragmatics was initially monomodal in that its conceptualization and practice were based on (1) viewing language as an object rather than a lived experience and (2) reducing language objects to writing. Even though someone's speech is directly recorded and transcribed into static symbols for the eye to see. In multimodality, the original verbal and auditory modalities are transformed into visual modalities. The multimodal concept has three primary definitions (1) The most related sense organs and nervous tissue, (2) Semiotic sources for meaning construction, and (3) A way of representing information through some physical medium. Multimodal integrates various information in text, audio, visual and video (Huang, 2022).

Pragmatics studies the relationship between language and context and the relationship between language use and its users/speakers. In its operational action, pragmatic studies seek to explain how language serves its speakers in use. Everything that the speaker does in the speech act and the system that operates so that the speech is in harmony with the speaker, the speaker and the context. Multimodal pragmatic analysis was then developed using speech act theory to study human behaviour in social situations. With this approach, human interaction researchers seek to investigate pragmatic issues further to develop human interaction issues better and refine traditional pragmatic theories or concepts (Huang, 2021). Each utterance is a language unit that has meaning in a social context when there is communication interaction. All communication interactions are what are called multimodal (Norris, 2004).

According to Anstey and Bull (2010), in multimodal analysis, multimodal pragmatics is the way people communicate using different modes simultaneously to create meaning. These modes include verbal, visual, gestural, aural, and spatial. A visual component in multimodal studies is important because it will significantly influence a person's interest and interest in learning. Learning that ignores the visual dimension tends to be monotonous, uninteresting and perceived by students as dull (Rahardi, 2022). The existence of captions in pictures or diagrams, shapes and sizes, will also significantly contribute to the multimodality of the design of multimodal pragmatic learning models. Research on multimodal learning aims to explore and fully use multimedia materials such as the Internet for learning (Huang, 2022). It can be emphasized that it is essential to include visual aspects in the design of multimodal-based pragmatic learning models (Vedantam et al., 2017). Based on the explanation above, multimodal pragmatics is a new perspective in pragmatic analysis that studies linguistic or verbal modes and other modes, such as audio and visual. Multimodal tries to combine several modes that are used simultaneously to communicate with each other. In today's digital era, multimodal messages are conveyed more effectively by combining several modes that help create diverse and comprehensive meanings.

CONCLUSION

Based on the explanation of research results, it can be concluded that the multimodal concept is a theory that observes the use of various modes by individuals to communicate and express themselves, which involves writing, gestures, body posture, eye gaze, choice of fonts and colours, images, videos, and interactions between individuals, Multimodal characteristics include (1) multimodality and its interactions, which involve various ways of communication, such as verbal elements (words), visual (images and layout), audio (sound), kinesthetic (body movements), and other modalities that interact with each other form meaning. (2) the role of technology as a key element in modern multimodal pragmatics, with a focus on the influence of digital technology on communication and understanding media messages in specific ways, as well as its impact on audiences. (3) visual modality includes image analysis, graphic design, visual design, layout, and how visual elements contribute to conveying the message. (4) social and cultural context consists of social context and the role of culture in the formation of meaning, which influences the interpretation of messages in multimodal communication. (5) social interaction analysis investigates how hierarchy, power, and social interaction roles are reflected in multimodal communication. (6) multimodal literacy skills to understand and produce messages using various communication modes. (7) semiotic analysis uses a semiotic approach to analyze multimodal communication, including signs, symbols and the meaning contained. (8) case studies and detailed analysis, used to explore multimodal communication processes in specific contexts, provide a deeper understanding of how meaning is formed in specific situations.

The multimodal aspect includes (1) creating and giving meaning to several modes of communication. (2) some modes involved in the communication process can be verbal language, sign language, images, sounds, or body movements. (3) multimodal practice includes message interpretation and learning that can be drawn from multimodal communication. The concept of multimodal pragmatics is a new perspective in pragmatic analysis that examines not only linguistic or verbal modes but also other modes, such as audio and visual, which are used simultaneously to communicate. Multimodal tries to combine several modes that are used simultaneously to communicate with each other. In the current digital era, multimodal messages are conveyed more effectively because of the combination of several modes that help create diverse and comprehensive meanings. Thus, pragmatic studies using a multimodal perspective are considered important because in understanding a speech, one not only analyses linguistic aspects but also pays attention to multimodal communication, in the form of visual or audiovisual, so that it can strengthen the meaning or objective of the speech act to be conveyed.

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References

- Allan, K., & Jaszczolt, K. (2012). The Cambridge Handbook of Pragmatics. United States of America: Cambridge University Press.
- Anchimbe, E. A., & Janney, R. W. (2011). "Ostcolonial Pragmatics: An Introduction". Journal of Pragmatics, Vol. 43, No. 6, page 1451-1459.
- Anstey, Michelle; Geoff Bull. (2010). "Helping Teachers to Explore Multimodal Texts". Curriculum Leadership: An Electronic Journal for Leaders in Education, Vol. 8, No. 16.
- Atmaja, D. (2017). "Implementasi Augmented Reality untuk Pembelajaran Interaktif". ILKOM Jurnal Ilmiah, Vol. 9, No. 2, page 227-232.
- Badriyah, I & Antono, M. N. (2022). "Varieties of Illocutionary Speech of Madurese Religion Teachers at YPI Al Khoiriyah". The 2nd International Conference of Humanities and Social Science. Vol. 2, No. 2, page 44-50.

- Baltrušaitis, T., Ahuja, C., & Morency, L. P. (2018). "Multimodal Machine Learning: A Survey and Taxonomy". IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 41, No. 2, page 423-443.
- Braun, S. (2016). "The Importance of Being Relevant? A Cognitive-Pragmatic Framework for Conceptualising Audiovisual Translation". Target, Vol. 28, No. 2, page 302-313.
- Brown, J., & Williams, E. (2022). "Pragmatik: Kajian Tentang Konteks dan Penggunaan Bahasa". Jurnal Linguistik Terapan, Vol. 39, No. 2, page 201-218.
- Bucher, H. (2017). Understanding Multimodal Meaning Making: Theories of Multimodality in the Light of Reception Studies. In book: (eds.) 2017: New Studies in Multimodality. Conceptual and Methodological Elaborations. New York: Bloomsbury.
- Chen, L., et al. (2020). "Cross-Cultural Interpretations of Multimodal Communication: A Case Study of International Business Negotiations". Journal of Intercultural Pragmatics, Vol. 28, No. 3, page 311-328.
- Chen, L. (2021). "Interpretasi Pesan dalam Komunikasi Multimodal: Pengaruh Bahasa Verbal dan Non-Verbal". Jurnal Psikologi Komunikasi, Vol. 28, No. 4, page 521-537.
- Darmadi, H. (2011). Metode Penelitian Pendidikan. Bandung: Alfabeta.
- Forceville, Charles. (2014). Relevance Theory as Model for Analyzing Visual and
- Multimodal Communication, in David Machin (ed.). In book: Visual Communication. Berlin: Mouton de Gruyter, page 51-70.
- Garcia, C., & Lee, S. (2019). "The Role of Context in Multimodal Communication: A Cross-Cultural Perspective". International Journal of Intercultural Communication, Vol. 35, No. 4, page 521-537.
- Garcia, C., Lee, M., & Johnson, B. (2023). "Kompleksitas Pragmatik Multimodal dalam Interaksi Sosial". Jurnal Komunikasi Multimodal, Vol. 45, No. 1, page 301-315.
- Gee, J. P. (2003). What Video Games Have to Teach Us About Learning and Literacy. New York: Palgrave Macmillan.
- Groenke. (2021). "Multimodal Text and 21st Century Literacy Institution". The Alan Review Winter 2012, Vol. 39, No. 2, page 62-67.
- Huang, Lihe. (2021). "Toward Multimodal Corpus Pragmatics: Rationale, Case, and
- Agenda". Digital Scholarship in the Humanities, Vol. 36, No. 1, page 101–114.
- Huang. Lihe. (2022). Toward Multimodal Pragmatics: A Study of Illocutionary Force in Chinese Situated Discourse. New York: Routledge.
- Jewitt, C., & Kress, G. R. (Eds.). (2003). Multimodal Literacy. New York: Peter Lang.
- Jewitt, C. M. (2009). The Routledge Handbook of Multimodal Analysis. London: Routledge.
- Jones, R., & Smith, A. (2022). "Pragmatik Multimodal: Integrasi Bahasa Verbal dan Non-Verbal dalam Komunikasi Manusia". Jurnal Studi Komunikasi, Vol. 40, No. 3, page 201-218.
- Kress, G., & van Leeuwen, T. (2001). Multimodal Discourse: The Modes and Media of Contemporary Communication. London: Routledge.
- Mayer, R. E. (2009). Multimedia Learning: Combining Media and Modes. In K. Wentland & C. McLellan (Eds.), The Cambridge Handbook of the Learning Sciences. USA: Cambridge University Press
- Norris, S. (2004). Analyzing Multimodal Interaction: A Methodological Framework. New York dan London: Ruotledge.
- Nursalam. (2016). Metodologi Penelitian ilmu keperawatan. Jakarta: Selemba Medika.
- Orsini-Jones, et all. (2019). "The Trouble With Cyberpragmatics: Embedding An Online Intercultural Learning Project Into The Curriculum". International Journal of Computer-Assisted Language Learning and Teaching, Vol 7, No. 1, page 50-65.
- Oviatt, S. (2003). Multimodal Interfaces in Encyclopedia of Library and Information Science, 2nd Edition. London: Routledge.
- Rahardi, R. K. (2020). "Kenomotetisan dan Keideosinkretisan Makna Simbolis Peranti Pernikahan Adat Masyarakat Nusa Tenggara Timur dan Jambi: Perspektif Ekolinguistik". Lensa: Kajian Kebahasaan, Kesusastraan, dan Budaya, Vol. 10, No. 1, page 69-82.
- Rahardi, K. (2022). "Persepsi Urgensi Inklusi Aspek-aspek Multimodalitas dalam Desain Model Pembelajaran Pragmatik Edukasional". LOA Jurnal Ketatabahasaan dan Kesustraan, Vol. 17, No. 2, page 161-171.

- Ruddel, M., & Unrau, N. (2004). "The Role of Emoticons in Online Communication: A Study of Text-Based Communication Among College Students". Journal of Educational Computing Research, Vol. 30, No. 4, page 387-404.
- Sheridan, T. (2019). The Future of Multimodal Communication: Augmented Reality and Virtual reality. In M. C. Wetzel (Ed.), The Handbook of Multimodal Communication. John Wiley & Sons.
- Smith, A., & Johnson, B. (2018). "Understanding Multimodal Pragmatics: Integrating Verbal and Nonverbal Communication". Journal of Communication Studies, Vol. 45, No. 2, page 201-218.
- Vedantam, R., et all (2017). "Contextaware Captions from Context-Agnostic Supervision". Proceedings 30th IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2017, page 251-260.
- Williams, D., & Brown, K. (2021). "The Impact of Technology on Multimodal Communication: Trends and Future Directions". Communication and Society, Vol. 18, No. 1, page 81-97.
- Zed, M. (2008). Metode Penelitian Kepustakaan. Jakarta: Yayasan Obor Indonesia