



TEACHERS' NEEDS IN MULTIMODAL ENGLISH TEACHING MODEL FOR JUNIOR HIGH SCHOOL LEVEL

Alan Jaelani¹, Liliana Muliastuti², Samsi Setiadi³

Applied Linguistics, Universitas Negeri Jakarta, Indonesia

alan.jaelani@mhs.unj.ac.id¹; liliana.muliastuti@unj.ac.id²; syamsi.setiadi@unj.ac.id³

ABSTRACT

This study investigates the needs of English teachers in implementing a multimodal teaching model at the junior high school level in Indonesia. Using a qualitative descriptive approach, the study involved in-depth interviews with 25 English teachers from public junior high schools in Bogor city and district. Findings revealed that while teachers frequently use multimodal resources, most lack conceptual clarity about multimodal pedagogy. Teachers expressed a strong need for clear guidelines, hands-on training, accessible resources, and continuous professional support. Notably, they perceive multimodal texts as effective tools for enhancing student engagement that supports CEFR language level competencies, creativity and collaboration. The study emphasizes the urgency of developing a practical, curriculum-aligned multimodal teaching model tailored to teachers' contexts and capacities.

Keywords: Multimodal teaching, English education, Junior high school, CEFR level, Teacher needs

INTRODUCTION

In today's rapidly evolving educational landscape, teaching and learning processes are increasingly influenced by digital technologies and multimodal resources. Multimodal literacy, referring to the ability to interpret, create, and evaluate messages across a variety of modes including textual, visual, audio, gestural, and spatial has become an essential component of 21st-century learning (Beavis, 2013; F. V. Lim et al., 2022; Weninger, 2020). Within English language education, the integration of multimodal texts provides opportunities for students to access meaning through diverse semiotic channels, thus enriching their engagement and comprehension (Fjørtoft, 2020; Hafner, 2020). As students today are immersed in multimodal environments through social media, video platforms, and digital games, English teachers are challenged to align their pedagogical practices with the evolving literacy landscape (Kohnke et al., 2022; Li, 2020). The Indonesian national curriculum, *Kurikulum Merdeka*, encourages the development of multiliteracies and 21st-century skills, thus offering a favorable context for multimodal pedagogy (Nur et al., 2023; Sinar et al., 2023).

Multimodal texts in English language classrooms include digital storytelling, video projects, audio-visual materials, infographics, and interactive presentations each of which engages learners through combinations of linguistic and non-linguistic elements (Liu, 2022; Ross et al., 2020). Scholars have argued that the use of multimodal resources promotes communicative competence, critical thinking, and creativity when designed around students' linguistic levels and interests (Cao & Chen, 2014; Hafner, 2020). Empirical research has also shown that multimodal approaches can facilitate learners' acquisition of reading, listening, speaking, and writing skills more effectively than mono-

modal instruction (J. Lim & Kessler, 2024; Liu, 2022; Morgenstern, 2023). However, these promising outcomes depend heavily on teachers' knowledge, confidence, and access to practical resources. Teachers are the central agents in adapting, implementing, and sustaining innovations in the classroom; therefore, understanding their readiness and support needs in adopting multimodal pedagogy is critical (Huang, 2019).

Despite the theoretical and curricular support for multimodal teaching, studies show that many English teachers in developing countries, including Indonesia, encounter significant barriers in integrating multimodal texts into daily instruction (Azizaturrohmi & Sani, 2023; Dwi Jayanti & Damayanti, 2023). While teachers may intuitively use videos, pictures, or music as supplementary materials, they often lack a clear understanding of multimodal text theory and its pedagogical implications. Moreover, gaps in teacher training, limited time for lesson design, inadequate digital infrastructure, and the absence of practical guidelines constrain effective implementation. In junior high schools, these challenges are compounded by large class sizes, varying student proficiency levels, and restricted access to mobile devices.

While a growing body of research has focused on student engagement with multimodal texts (Burgess & Rowsell, 2020; Perry, 2020), fewer studies have investigated the teacher perspective in the context of Indonesian junior high schools. Existing studies often generalize digital or IT-based instruction without exploring the specific pedagogical, conceptual, and resource-based needs of English teachers when working with multimodal texts. Few investigations have examined how teachers perceive the relevance of multimodal teaching in relation to the Common European Framework of Reference for Languages (CEFR) which is expected of junior high learners in national education targets. Consequently, there exists a critical need to explore teachers' understanding, challenges, and support systems in adopting multimodal English instruction.

Given this background, the present study aims to address four key questions: (1) How well do junior high school English teachers understand the concept and elements of multimodal texts in English teaching? (2) What challenges do they face in implementing multimodal texts in their classrooms? (3) What kinds of practical guidance and instructional resources do teachers require to teach multimodal texts effectively? (4) How do teachers perceive the relevance and benefits of multimodal text instruction for developing students' English competence in alignment with CEFR B1 level? By addressing these questions, the study seeks to uncover both the current state of teachers' pedagogical practices and the systemic supports necessary for improving multimodal literacy in English education.

METHOD

This study adopted a qualitative descriptive approach (Creswell & Creswell, 2018) to explore English teachers' understanding, challenges, needs, and perceptions regarding multimodal teaching at the junior high school level. The participants of this study comprised 25 English teachers from various public junior high schools located in Bogor City and Bogor District, Indonesia. These teachers were purposively selected based on their teaching experience in English and their exposure to technology-assisted or multimodal teaching strategies, either through classroom practice or professional development activities. To collect data, the researchers conducted in-depth semi-structured interviews with each participant. The interviews explored participants' definitions and understanding of multimodal texts, their experience in applying multimodal resources in English instruction, the barriers they encountered, and their

perceived needs for effective multimodal teaching. Interviews were audio-recorded with consent and transcribed verbatim to ensure accuracy and transparency in analysis.

Data analysis followed a systematic process based on open coding, axial coding, and selective coding (Miles & Huberman, 1994). In the open coding phase, meaningful units from the transcripts were labelled and grouped into initial categories. Axial coding was then employed to establish relationships between these categories, identifying recurring patterns and sub-themes that addressed the research questions. Finally, selective coding integrated the categories into core themes that provided a coherent understanding of teachers' perspectives and practices related to multimodal teaching.

RESULT AND DISCUSSION

Teachers' Understanding of Multimodal Texts

Data from interviews with English teachers revealed varying levels of conceptual awareness. While most teachers were unfamiliar with the term multimodal at the outset, many demonstrated implicit understanding through their classroom practices involving images, videos, sounds, and student presentations. The findings are summarized in the following table.

Table 1. Teacher Conceptual Awareness of Multimodal Texts

Understandings	Description	Respondents
Implicit Practical Understanding	Teachers understood the practice but not the term "multimodal"	R1, R3, R7, R11, R18, R22
Partial Conceptual Awareness	Teachers recognized elements like text + image or video + audio	R2, R4, R5, R9, R15, R19
Terminological Awareness	Teachers were familiar with the term and its academic definition	R6, R10, R13, R17, R20
Confused or Limited Knowledge	Teachers were unsure or conflated it with "multimedia"	R8, R12, R14, R16, R21, R25

The data show that while many teachers engage in multimodal practices, such as assigning video-making or using song lyrics and images, few are able to explicitly define or label their methods using academic terminology. For instance, R1 admitted: *"Actually I just heard the term 'multimodal' recently, but I've been using videos and pictures in my teaching for years."* Similarly, R5 stated: *"If multimodal means using more than one mode, then yes, I combine texts and visuals or audio, but I never thought about it as a formal concept."*

This suggests that although teachers are doing multimodal teaching, they lack a theoretical framework to critically design and evaluate these practices. R13 was among the few who could articulate the concept clearly: *"Multimodal texts are those that communicate meaning through different semiotic modes like visual, audio, written, gestural and I try to integrate at least two or more in my teaching."*

These findings align with previous studies (Kuru Gönen & Zeybek, 2022; Serafini et al., 2020; Xiong & Lai, 2024) which found that teachers often implement multimodal approaches intuitively without a grounding in multimodal literacy theory. Without explicit knowledge, teachers may not be fully maximizing the pedagogical potential of multimodality, especially in relation to language acquisition goals such as CEFR-aligned comprehension or production skills. Confusion between multimedia and multimodality was common. R8 noted: *"Is it the same as multimedia? Like PowerPoint or YouTube? I'm not sure I understand the difference."* This confusion can lead to overly tool-oriented teaching that prioritizes *technology use* over *meaning-making* processes.

These results highlight a pedagogical gap. While practice exists, theoretical grounding does not. The implication is clear, that is, professional development programs must bridge this divide by explicitly introducing the concept of multimodal texts within English language pedagogy, contextualized to classroom realities. Moreover, introducing the theoretical basis, such as the multimodal framework by Kress & van Leeuwen (2006), would empower teachers to plan, assess, and justify their multimodal choices systematically and effectively.

Challenges in Implementing Multimodal Texts in English Language Teaching

The integration of multimodal texts into English language teaching is not without its challenges. Teachers encounter various obstacles that hinder the effective implementation of such texts in classroom practice. These challenges arise from both systemic and practical issues, including the availability of suitable resources, the readiness of technological infrastructure, and constraints related to time and curriculum design. Educators may struggle with aligning multimodal materials to curricular goals and standards when such resources are not explicitly supported within existing lesson plans. The technical problems frequently disrupt classroom activities and challenge the reliability of using digital media. These issues are categorized and presented in the table below.

Table 2. Teacher's Challenges in Implementing Multimodal Texts

Challenges	Description	Respondents
Content selection	Difficulty in finding appropriate, level-matching, culturally relevant media	R1, R2, R3, R6, R12
Infrastructure limitations	Limited access to digital tools, reliance on school TVs, lack of internet	R3, R4, R5, R7, R10
Time constraints	Limited time for preparing multimodal materials amidst administrative load	R2, R5, R8, R13, R15
Curriculum alignment uncertainty	Confusion over integrating multimodal texts with curriculum demands	R1, R9, R11, R14
Technical disruptions	Problems with equipment like TVs, USB ports, speakers, and file compatibility	R3, R5, R10, R16

One of the most prominent issues identified is the difficulty in selecting appropriate multimodal materials. Teachers often expressed concern over whether a video or audio clip matched the students' English proficiency level or cultural context. As R1 explained, *"I was afraid the students would not understand the content, especially if the speaker talks fast or has a foreign accent."* Similarly, R2 stated, *"Choosing the right media is the hardest part. Sometimes the video is good, but the vocabulary is too difficult."*

Technological limitations also posed a serious barrier. Despite the availability of large-screen TVs in some classrooms, respondents noted that not all classrooms are equally equipped. R4 shared, *"We have to take turns using the TV because not all rooms have it. Sometimes, I bring my own laptop and plug it in, but it's not always practical."* Moreover, teachers are prohibited from allowing students to use their mobile phones, reducing opportunities for individual engagement with multimodal texts.

Another recurring theme is the lack of time to prepare high-quality multimodal teaching materials. Teachers reported that the preparation of interactive videos, slides, or visual aids requires extra hours outside teaching hours. R8 emphasized, *"We have too many administrative tasks. I usually do it at night or on the weekend. It's exhausting."*

Uncertainty about integrating multimodal texts into the existing curriculum is also evident. Teachers admitted that while the Kurikulum Merdeka promotes creativity, they lack concrete guidelines for applying multimodal principles effectively. R11 remarked, *"The curriculum seems to support it, but we need more clarity. I don't know how far we can go with it or what counts as multimodal in formal assessments."*

Technical difficulties such as malfunctioning remote controls, broken audio systems, or incompatible file formats often disrupt teaching. R5 recounted, *"I tried to play a video, but the sound didn't work. It was embarrassing. Now I always have a backup."* These logistical issues not only affect the smooth delivery of content but also the teacher's confidence.

These findings reveal a tension between enthusiasm and feasibility. While most teachers express a positive attitude toward multimodal learning, their ability to implement it effectively is hindered by both systemic and technical challenges. Importantly, the challenges are not just about technology but also about pedagogical confidence and institutional support. Without proper training, consistent resources, and clearer curricular frameworks, multimodal teaching may remain fragmented and underutilized. Teachers' willingness to adopt innovative practices must therefore be matched by structural and professional development support.

Teachers' Needs in Practical Learning Model for Teaching Multimodal Texts

In response to the challenges faced in implementing multimodal texts, English teachers have expressed a strong need for practical support and structured guidance to effectively integrate these resources into their teaching. Many educators highlighted the importance of training that is both theoretical and contextualized with real classroom examples and hands-on experience. Clear, curriculum-aligned teaching guidelines are also in high demand, as teachers seek clarity on how to incorporate multimodal texts within the constraints of existing lesson plans. Additionally, there is a call for accessible, ready-to-use media materials that are editable and tailored to students' proficiency levels. Beyond individual resources, teachers also emphasized the value of ongoing professional support through collaborative communities, where they can share strategies, troubleshoot challenges, and stay updated on best practices.

Table 3. Teachers' Needs in Practical Learning Model

Needs	Description	Respondents
Practical and Contextual Training	Teachers emphasized the need for hands-on workshops and real classroom examples.	R2, R5, R10, R12, R17, R21
Clear Teaching Guidelines	Respondents expressed the need for step-by-step guides aligned with the curriculum.	R1, R3, R7, R13, R19
Ready-to-Use Media Resources	Teachers wanted access to editable and level-appropriate multimodal materials.	R4, R8, R9, R15, R18, R22
Ongoing Professional Support	Many teachers asked for continued collaboration through teacher communities.	R6, R11, R14, R20, R23, R24

Most teachers emphasized the urgency of having practical and contextual training, stating that existing professional development often lacks relevance to real classroom challenges. R5 stated, *"If possible, I want training that's not just theory, but with real examples of how to use multimodal texts in class adjusted to junior high students."* Similarly, R21 mentioned that simulations or demonstrations in workshops would greatly enhance their confidence in teaching multimodal texts.

Another common concern was the lack of clear teaching guidelines. Teachers expressed difficulty in aligning multimodal teaching with existing curriculum objectives. R13 noted, *"Even though we are encouraged to be creative, I often feel unsure whether I am still within the bounds of the curriculum when I try to use video or audio texts."* R7 added, *"It would be helpful to have rubrics or clear examples of multimodal assessments."*

The third need voiced by respondents was access to ready-to-use learning resources that are editable, culturally appropriate, and matched to students' proficiency levels. R4 highlighted, *"It takes a long time to search for the right video or template. Sometimes I end up making my own from scratch."* R15 further explained that many available online materials are either too advanced or culturally disconnected, making them ineffective in the Indonesian classroom context.

Many teachers emphasized the importance of ongoing professional support in the form of peer collaboration or teacher communities. R11 remarked, *"In our MGMP group, we've started talking about this, but we need more structured support, like a forum or platform where we can share lesson plans or troubleshoot problems together."* Others, like R20 and R24, suggested that school-based mentoring or cross-school collaboration could sustain the momentum of multimodal teaching efforts.

The convergence of these themes points to a larger systemic gap between curricular expectations for innovative, multimodal teaching and the institutional support provided to teachers. While multimodal texts are implicitly encouraged in the Merdeka Curriculum, teachers feel unequipped to meet these expectations due to the absence of operational tools and sustained capacity-building. This strengthens the need for both top-down (curricular alignment, materials provision) and bottom-up (teacher empowerment, professional networks) strategies to enable meaningful and effective multimodal literacy instruction at the junior high school level.

Teachers' Perceptions of Relevance and Benefits of Multimodal Texts aligned with CEFR Level

The majority of English teachers perceive multimodal text integration as a highly relevant and effective approach to enhance students' language competence, particularly in terms of aligning classroom practices with CEFR level. Most teachers believe that multimodal inputs (such as videos, songs, infographics, and animations) assist students in understanding general and specific meanings, promote contextual language use, and help students infer information beyond literal interpretation. Table 4 below summarizes the thematic of the teachers' responses regarding the perceived benefits of using multimodal texts:

Table 4. Teachers' Perceptions of the Relevance and Benefits of Multimodal Texts

Perception	Description	Respondents
Enhancing comprehension of meaning	Teachers believe multimodal texts help students understand general and specific meaning faster.	R1, R4, R7, R15, R23
Improving speaking and listening confidence	Exposure to audiovisual materials encourages students to speak and listen more confidently.	R2, R9, R14, R20, R25
Increasing engagement and motivation	Multimodal materials increase students' interest and participation in English learning.	R3, R5, R11, R13, R21

Supporting contextual learning for CEFR B1	Teachers report that multimodal input facilitates contextual understanding aligned with CEFR B1.	R6, R10, R12, R17, R24
Fostering creativity and self-expression	Multimodal tasks promote creativity and allow students to express themselves in varied formats.	R8, R16, R18, R19, R22

The findings reveal that teachers associate multimodal instruction with linguistic outcomes such as vocabulary retention and listening accuracy and with affective and communicative development. R2 shared: *“Students become braver to speak after watching and imitating,”* highlighting the confidence-building potential of audiovisual models. Similarly, R24 emphasized the alignment with CEFR: *“Multimodal learning helps students grasp meaning from the situation, not just from words or sentences.”* This directly reflects B1-level expectations where learners are required to understand the main points of clear standard input on familiar matters.

Teachers also reported a significant shift in student engagement, with R13 noting: *“They’re more active and enjoy learning through video.”* This sense of enjoyment and agency contributes to sustained motivation, which is crucial for language acquisition at the B1 level where learners are expected to engage in extended interaction, both in speech and writing. Notably, R8 remarked: *“Even shy students express more in group video projects,”* which illustrates the inclusive power of multimodal tasks for students of diverse proficiency and personality.

Some respondents, however, warned against overestimating autonomy in multimodal learning. Several teachers (e.g., R19 and R20) stressed the need for teacher guidance, especially in scaffolding complex input such as fast-paced video speech or unfamiliar accents. R20 explained: *“They still need help, especially to catch unfamiliar words or phrases in videos.”* Thus, while the integration of multimodal materials supports B1 communicative goals, teacher mediation remains essential.

Discussion

The integration of multimodal approaches in English language teaching is increasingly recognized as a powerful means to enhance both teaching and learning experiences. In EFL settings like Indonesia, the need for a structured, practical, and curriculum-aligned multimodal teaching model is strongly evident. Teachers face multifaceted challenges in multimodal instruction ranging from limited training to uncertainty about digital tool implementation. Addressing these challenges calls for a deeper exploration of teachers’ perspectives, pedagogical frameworks, and the benefits of multimodality in the classroom.

Firstly, multimodal literacy is essential for preparing students to engage with real-world communicative tasks. As noted by Bonsignori & Cappelli (2022), multimodal strategies in English for tourism classrooms promote conceptual accessibility, helping learners understand abstract content more concretely. This suggests that junior high school English teachers could greatly benefit from professional development programs that show how to adapt similar techniques into everyday lessons. Teachers need clear, contextualized models that connect the teaching of multimodal texts with curriculum objectives, mostly those aligned with functional texts common in Indonesian national curricula.

This practical need is further supported by Boche & Henning (2015), who demonstrated how multimodal scaffolding could enhance comprehension and

engagement in secondary English classrooms. Teachers who lack exposure to such scaffolding techniques may struggle to guide students through multimodal materials effectively. The call for training and collaboration is echoed in Banegas et al. (2020), who argue that involving teachers in material design contributes to both their professional development and ownership of instructional content. Involving junior high school teachers in co-constructing a multimodal model ensures the model is pedagogically sound and contextually relevant. This aligns with the findings of Ross et al. (2020), who emphasize the value of collaborative multimodal assessment design in higher education. By extension, similar collaborative design principles can be adapted to pre-tertiary settings, ensuring teacher voice is central in model development.

Multimodal teaching also aligns well with learner-centered instructional approaches. Jaiswal (2019) emphasizes that such approaches can improve student performance by catering to diverse learning styles and intelligences. When implemented effectively, multimodal instruction addresses visual, auditory, and kinesthetic learners by combining text, image, sound, and movement. However, this requires that teachers be equipped with both technical skills and pedagogical understanding of how each mode contributes to meaning-making (Kress & van Leeuwen, 2021). Moreover, digital multimodal tools such as vlogs (Huang, 2019), infographics (Unsworth, 2006), and platforms (Pham & Li, 2023) offer great potential in junior high contexts. These tools facilitate expressive communication and creativity.

Another key consideration is the alignment of multimodal instruction with assessment practices. Traditional tests may not fully capture students' communicative competence in multimodal environments. Fjørtoft (2020) suggests that digital multimodal assessments allow for more authentic demonstrations of student understanding, creativity, and engagement. Therefore, teachers require training in designing multimodal lessons and developing fair and practical assessments that reflect the multimodal nature of 21st-century communication.

CONCLUSION

Teachers strongly express the need for a model of multimodal English language teaching that is aligned with the functional text-based curriculum implemented in Indonesian junior high schools. Such a model would provide them with pedagogical clarity, examples of classroom application, and tools for designing multimodal learning experiences that directly address CEFR B1 competencies. While many teachers engage with multimodal resources in their classrooms, their theoretical understanding of multimodal texts remains limited. Most teachers associate multimodality with the use of various media such as videos, audio, images, and animations but lack clarity on the underlying concepts and pedagogical frameworks. This partial understanding often leads to unstructured application, where the integration of multimodal elements is done instinctively rather than systematically. Despite this, teachers demonstrate a strong willingness to adopt multimodal approaches, as they recognize their positive impact on students' engagement, comprehension, and communicative abilities. Teachers also face several challenges, including limited time for preparation, inconsistent access to technological infrastructure, technical difficulties, and a lack of guidance on media selection. These obstacles are further compounded by the absence of specific support materials and structured training. Teachers overwhelmingly perceive multimodal instruction as highly relevant to achieving CEFR-aligned outcomes. However, they also acknowledge the need for teacher mediation, particularly to scaffold complex inputs and guide students toward independent comprehension. For multimodal approaches to be

effectively implemented in junior high school English classrooms, it is essential to provide structured, curriculum-integrated models and sustained professional support that empower teachers to move from fragmented practices to informed, purposeful multimodal pedagogy.

BIBLIOGRAPHY

- Azizaturrohm, Z., & Sani, N. A. (2023). Indonesian EFL Students and Teachers Perceptions of Multimodal Teaching Approach in Writing Skills. *International Journal of Research and Scientific Innovation, X(IV)*. <https://doi.org/10.51244/ijrsi.2023.10401>
- Banegas, D. L., Corrales, K., & Poole, P. (2020). Can engaging L2 teachers as material designers contribute to their professional development? findings from Colombia. *System, 91*. <https://doi.org/10.1016/j.system.2020.102265>
- Beavis, C. (2013). Literary English and the Challenge of Multimodality. *Changing English: Studies in Culture and Education, 20(3)*. <https://doi.org/10.1080/1358684X.2013.816527>
- Boche, B., & Henning, M. (2015). Multimodal scaffolding in the secondary english classroom curriculum. *Journal of Adolescent and Adult Literacy, 58(7)*. <https://doi.org/10.1002/jaal.406>
- Bonsignori, V., & Cappelli, G. (2022). Developing strategies for conceptual accessibility through multimodal literacy in the English for tourism classroom. *Multimodal Communication, 11(1)*. <https://doi.org/10.1515/mc-2020-0026>
- Burgess, J., & Rowsell, J. (2020). Transcultural-affective flows and multimodal engagements: reimagining pedagogy and assessment with adult language learners. *Language and Education, 34(2)*. <https://doi.org/10.1080/09500782.2020.1720226>
- Cao, D., & Chen, L. (2014). Interpreting the construction of the multimodality of E. E cummings' "Eccentric typographical" poem "l(a)." *Journal of Language Teaching and Research, 5(1)*. <https://doi.org/10.4304/jltr.5.1.154-162>
- Creswell, W. J., & Creswell, J. D. (2018). Research Design: Qualitative, Quantitative and Mixed Methods Approaches. In *Journal of Chemical Information and Modeling* (Vol. 53, Issue 9).
- Dwi Jayanti, E., & Damayanti, I. L. (2023). Exploring Teachers' Perceptions of Integrating Multimodal Literacy into English Classrooms in Indonesian Primary Education. *Child Education Journal, 5(2)*. <https://doi.org/10.33086/cej.v5i2.5240>
- Fjortoft, H. (2020). Multimodal digital classroom assessments. *Computers and Education, 152*. <https://doi.org/10.1016/j.compedu.2020.103892>
- Hafner, C. A. (2020). Digital multimodal composing: How to address multimodal communication forms in ELT. *English Teaching(South Korea), 75(3)*. <https://doi.org/10.15858/engtea.75.3.202009.133>
- Huang, S. ying. (2019). A critical multimodal framework for reading and analyzing pedagogical materials. *English Teaching, 18(1)*. <https://doi.org/10.1108/ETPC-08-2018-0078>
- Jaiswal, P. (2019). Using learner-centered instructional approach to foster students' performances. *Theory and Practice in Language Studies, 9(9)*. <https://doi.org/10.17507/tpls.0909.02>
- Kohnke, L., Fong, D., & Chen, J. (2022). Using Learner Analytics to Explore the Potential Contribution of Multimodal Formative Assessment to Academic Success in Higher Education. *SAGE Open, 12(2)*. <https://doi.org/10.1177/21582440221089957>
- Kress, G., & van Leeuwen, T. (2006). *Reading images: the grammar of visual design*. Routledge.

- Kress, G., & van Leeuwen, T. (2021). Reading Images: The Grammar of Visual Design. In *Reading Images* (3rd ed.). Routledge. <https://doi.org/10.4324/9781003099857>
- Kuru Gönen, S. İ., & Zeybek, G. (2022). Training on multimodal mobile-assisted language learning: a suggested model for pre-service EFL teachers*. *Computer Assisted Language Learning*. <https://doi.org/10.1080/09588221.2022.2157016>
- Li, M. (2020). Multimodal pedagogy in TESOL teacher education: Students' perspectives. *System*, 94. <https://doi.org/10.1016/j.system.2020.102337>
- Lim, F. V., Toh, W., & Nguyen, T. T. H. (2022). Multimodality in the English language classroom: A systematic review of literature. *Linguistics and Education*, 69. <https://doi.org/10.1016/j.linged.2022.101048>
- Lim, J., & Kessler, M. (2024). Multimodal composing and second language acquisition. In *Language Teaching* (Vol. 57, Issue 2). <https://doi.org/10.1017/S0261444823000125>
- Liu, Z. (2022). Introducing a multimodal perspective to emotional variables in second language acquisition education: Systemic functional multimodal discourse analysis. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1016441>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: a sourcebook of new methods / Qualitative data analysis: a sourcebook of new methods*. Beverly Hills; Sage Publications.
- Morgenstern, A. (2023). Children's multimodal language development from an interactional, usage-based, and cognitive perspective. In *Wiley Interdisciplinary Reviews: Cognitive Science* (Vol. 14, Issue 2). <https://doi.org/10.1002/wcs.1631>
- Nur, S., Nurhadi, N., & Pratiwi, Y. (2023). Revolusi Buku Ajar Bermuatan Teks Multimodal Terintegrasi Media: Kurikulum Merdeka. *GHANCARAN: Jurnal Pendidikan Bahasa Dan Sastra Indonesia*. <https://doi.org/10.19105/ghancaran.vi.11769>
- Perry, M. S. (2020). Multimodal engagement through a transmedia storytelling project for undergraduate students. *GEMA Online Journal of Language Studies*, 20(3). <https://doi.org/10.17576/gema-2020-2003-02>
- Pham, Q. N., & Li, M. (2023). Digital Multimodal Composing Using Visme: EFL Students' Perspectives. *Asia-Pacific Education Researcher*, 32(5). <https://doi.org/10.1007/s40299-022-00687-w>
- Ross, J., Curwood, J. S., & Bell, A. (2020). A multimodal assessment framework for higher education. *E-Learning and Digital Media*, 17(4). <https://doi.org/10.1177/2042753020927201>
- Serafini, F., Moses, L., Kachorsky, D., & Rylak, D. (2020). Incorporating Multimodal Literacies Into Classroom-Based Reading Assessment. *Reading Teacher*, 74(3). <https://doi.org/10.1002/trtr.1948>
- Sinar, S., Ganie, R., & Syarfina, T. (2023). Pelatihan Pembelajaran Literasi Bahasa Inggris Berbasis Multimodal Sebagai Implementasi Merdeka Belajar Kampus Merdeka. *Kementerian Pendidikan Dan Kebudayaan, June*.
- Unsworth, L. (2006). Towards a metalanguage for multiliteracies education: Describing the meaning - making resources of language-image interaction. *English Teaching: Practice and Critique*, 5(1).
- Weninger, C. (2020). Multimodality in critical language textbook analysis. *Language, Culture and Curriculum*. <https://doi.org/10.1080/07908318.2020.1797083>
- Xiong, W., & Lai, X. (2024). A structural model of teachers' teaching competencies based on multimodal affective features of support vector machines. *Applied Mathematics and Nonlinear Sciences*, 9(1). <https://doi.org/10.2478/amns.2023.2.00201>