

# Multimodality Reflected in EFL Teaching Materials: Indonesian EFL In-Service Teacher's Multimodality Literacy Perception

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## Abstract

The digital age, which has impacted EFL teaching and learning in Indonesia, has compelled educators to uphold higher instruction standards. Multimodality is currently an updated topic in relation to digital media in EFL learning. This study intends to examine the effects of Indonesian EFL teachers' multimodality perceptions in the teaching materials. It clarifies how EFL teachers in secondary schools use multimodal literacy practices for their students to develop learner's critical thinking and creativity. A mixed method with an explanatory sequential design was employed, with quantitative data analysis serving as the primary source of support for the results of the qualitative analysis. This study included 38 EFL in-service teachers in Indonesia. Open and close-ended questionnaires with score measurements as well as interviews regarding the multimodal structure expression, content, and preference were used to gather the data. The findings of the participants' multimodal literacy reveal a respectable mean score of 71.4 and standard deviation of 11. The questionnaire analysis results indicate that utilizing elements of visual (real images), auditory, and written elements is helpful in explaining the teaching and learning materials to the learners and can ensure that they have a thorough understanding of the materials using multimodal expression, content and preference. Overall, this shows that Indonesian EFL in-service teachers have shown adaptability in implementing multimodal literacy in their instructional materials, and they are conscious of switching from traditional to digital mode. As a result, more research is required to investigate the multimodal literacy practices used by EFL teachers in Indonesia.

**Keywords:** Multimodality, EFL Teaching and Learning materials, Multimodal Literacy

## INTRODUCTION

Nowadays, many educational professionals concerned about the effects of the constantly changing communication and technological paradigm on the teaching and learning process (Bowman, et.al., 2020; Martins, 2014). Multimedia teaching and learning have been so advanced that individuals and teachers' educators use their efforts to provide learners with digital materials (McClure & Pilgrim, 2021; Bowman, et.al, 2020). Consequently, the rapid of improving skills on

technology has been widely improved by all ages of society (McKnight, et.al., 2016). This means that in addition to written and spoken communication, interactions between individuals also involve symbols, images, emoticons, and other digital media platforms.

EFL teachers are expected to use their imagination when combining different modalities to use language learning media, including in Indonesia. The term "multimodal" can be taken into consideration in this situation because it

refers to the idea that learning occurs when many modes are used when studying (Kress: 2016). Regarding this, many students use a range of semiotic resources and modes to generate meaning in their daily lives, despite the fact that computers and new media are becoming more and more significant in people's lives. Their literacy activities are consequently becoming more multimodal. (Kress and Leeuwen, 1996 as cited by Yi, 2014).

Multimodality plays a role in understanding how different semiotic resources, such as verbal, visual, auditory, and spatial ones, are used in communication when learning the target language (Camiciottoli & Gomez, 2015; Choi & Yi, 2015). The outcomes when employed in EFL classes might be very variable. EFL students may be well-planned to connect words (or text) together in the today's and tomorrow's digitally context mediated and various forms of communication (Towndrow, Nelson, and Yusuf, 2013). In addition to verbal and written instruction, Sukyadi, Hermawan, and Dallyono (2016) found that EFL teachers in Indonesia also use body language and visual cues. The presumption gives rise to the idea that multimodality is addressed in the EFL teaching and learning process.

Since communication demands prudent attention to a range of meanings, whether they are represented by spoken or written words, visual, images, gestures, posture, movement, sound, or silence, language and literacy practices have actually always been multimodal. (Mills & Unsworth, 2017). Subsequently, Lim and Tan (2018) developed multimodal literacy through teaching the critical viewing of films with the setting was in Singapore. They valued high the multimodal approach and instructional content in the EFL teaching and learning. The knowledge, experiences, and interests of students should be the foundation of all classroom activities. Planning and producing multimodality requires incorporating students' understanding of narrative characterization and structure gained via visual modes, such as movies, videos, and picture books (Jewitt, 2008).

Multimodal literacy is the level of literacy required to comprehend knowledge presentation

variation and meaning-making modes that involve two or more communication channels (Jewitt, 2008). The process of understanding information by using digital texts and multimedia to view and portray it is referred to as multimodal literacy Walsh (2010). One can derive meaning from multimedia and digital texts through reading, watching, comprehending, responding to, producing, and engaging with them.

On the one hand, O'Halaran & Fei (2011) claim that multimodal literacy is about literacy as design that examines the role of diverse semiotic resources disseminated together through numerous modalities, including aural and visual, as well as their integration and interaction in creating a coherent text. The term "multimodal literacy" in a pedagogical context, according to Lim, et.al., (2022), refers to two components that need to be carefully considered throughout the teaching and learning process. First, there are issues with the multimodal texts that are frequently communicated through digital media being widely available. Second, in order to design engaging lesson experiences, teachers must understand how to include a semiotic repertoire into their pedagogic activities. Classroom teaching and learning practices are intrinsically multimodal.

Considering EFL instruction in Indonesia, coping with the demands of teachers' technology literacy improvement, many web and media are advanced and provided to the education field. The use of varied modes in the instruction can be considered as the term multimodality for teaching and learning. It is in line with the study conducted by Ryan, Scott and Walsh (2010) who mention that many current classrooms utilize texts range and new resources, for example the internet, digital programs, and mobile technology, many of which learners have been familiar with those than their teachers.

A study conducted by Lee (2014) looked into the effects of a multimodal approach that incorporates the arts. The findings indicated that the advance of multimodal-integrated learning gives impacts to the students' stimulus and confidence as evidenced by the learners' writing assignments, their digital stories, their reflective survey responses, and informal conversations

with the two pupils documented in the teacher journal.

Oldakowski (2014) examined the use of multimodal assignments and discovered that doing so not only helped students show what they were thinking, but also helped them make better decisions and have deeper understandings of the material's content. According to Eksi and Yakisik (2015), multimodal texts encourage students to employ their cognitive abilities and boost their creativity, focus, participation, and output. The use of multimodal texts in language skill courses alters not just the delivery of instruction, assessment, and course participation but also the responsibilities of instructors and students (Walsh, 2010). Although there are many spreading hardware of multimedia, the teachers themselves that should enrich the perspective or knowledge of multimodal in their teaching experience.

By investigating multimodality represented in the materials of teaching and learning process, it would be necessary to know the EFL teachers' literacy of using multimodal in developing the instructional materials. Multimodal literacy would also give impacts on the EFL assessment when the teachers apprehend and pertain it in the teaching and learning. In this digital era, of course, the demands of multiliteracy to the texts are increasing (Walsh, 2010).

Research on how EFL teachers perceive when they prepare and create instructional materials by incorporating multimodality has not been further investigated from the aforementioned earlier studies. Therefore, the focus of the current study is on the EFL teacher's multimodality perception concept in the teaching and learning of English as a foreign language (EFL), which can be represented in instructional materials that include exercises, tasks, and practice for students when the teaching and learning process is carried out both in-person and online classes.

Thus, to get ready with multimodal literacy situation in EFL teaching and learning context, there is a research question that is raised in this current study. The question concerns on the perception of EFL in-service teachers in Indonesia. It is *"How are the teachers' perception on the multimodal literacy practices in their teaching*

*materials, in terms of multimodal structure expression, content and preference in EFL classroom?"* Therefore, the current study's objective is to ascertain how EFL in-service instructors perceive multimodal EFL teaching and learning materials. It also describes how EFL teachers in secondary schools use multimodal literacy in their teaching materials to help students develop their critical thinking and creative thinking skills.

## METHODOLOGY

The research method used in this study was mixed method in which quantitative paradigm was used to measure the data using close-ended questionnaire. The analysis of closed-ended questionnaire then was used to support the analysis of open-ended questionnaire and interview as the qualitative results. The results were related to multimodal literacy applied in the instructional materials, and the participants' work on their designing EFL learner's worksheet.

### Research Design

The design used in this study was mixed method using Explanatory Sequential Design which means that the qualitative data analysis result is the central purpose of this study. In order to better comprehend a research problem, Cresswell (2012) claims that a mixed method research design is a process for gathering, analyzing, and combining both quantitative and qualitative research and method in a single study. Analyses of quantitative and qualitative data were both used to describe the multimodal literacy used in the participants' teaching materials.

The Statistics descriptive analysis was used in quantitative method using mean scores and standard deviation and to what extent the EFL teachers/ participants agreed with the items were found. The items were related to the effect of multimodal literacy to their materials given to the learners in instructional process. Then, qualitative data analysis was interpreted based on the evidence of the open-ended questionnaire and interview analysis and the framework of multimodal practices from Jewitt (2008), Walsh (2010) and Lim, et.al (2022).

**Data Sources**

Participants in this study were EFL in-service teachers from some Indonesian provinces, which is relevant to the data sources. They are West Sulawesi, Kalimantan, Central Java, and East Java. The majority of the data, however, came from Central Java's EFL in-service teachers. The authors focused more on multimodal literacy integrated in teaching materials and how participants used it than they did on any one province.

The questionnaire shared to the participants was answered during online learning in 2020. The number of the participants were 38 EFL in-service teachers who teach in junior high and senior high schools. There are 22 EFL teachers of junior high schools, and 16 EFL teachers of senior high schools. All the participants answered the close-ended questionnaire using scale measurement, and it was analyzed using mean and SD. Also, they responded on the open-ended questionnaire and interview as the qualitative data to be analyzed.

**Data Collection**

Closed-ended questionnaire was used to gather quantitative data. Meanwhile, interviews and open-ended questionnaire were used to collect the qualitative data. Additionally, the authors created a rubric to analyze the questionnaire. The participants completed the questionnaires and the interview utilizing Google Form and Zoom Meeting because the study was carried out during the Covid 19 epidemic in 2020.

The questionnaire was in the scope of

	N	Min	Max	Mean	Std. Deviat
Multimodal Literacy	38	50.00	90.00	71.4474	11.61
Valid N (listwise)	38				

multimodal literacy that can be applied in the teaching and learning materials. They are (1) multimodal structure expression in the teaching and learning materials, (2) content in multimodal

structure in the teaching and learning materials, and (3) multimodal structure preference. Those three subtitles then are classified again into some items related to the aspects of multimodal implementation.

**Data Analysis**

The quantitative data analysis was done by using mean and SD measurement. The qualitative data analysis was done from the participants' responses on the google form open-ended questionnaire and online interview. The frameworks used to analyze the qualitative data were modified from Jewitt (2008), Walsh (2010), and Lim, et.al (2022). The aspects of multimodal literacy represented in the instructional materials comprised of multimodal structure expression, multimodal structure content, and multimodal preferences.

**RESULT AND DISCUSSION**

The findings were resulted from the two paradigms, those were quantitative and qualitative methods since the study used mixed method. The quantitative analysis of initial result is available. Descriptive statistics were utilized in the study of the quantitative data in order to obtain the evidence of numerical outcomes connected to the integration of multimodal literacy in the teaching and learning materials.

**Quantitative Analysis Result of Open- Ended Questionnaire**

The mean and standard deviation as the quantitative analysis results show the relation of the multimodal literacy aspects implemented in the EFL teaching and learning materials. Thus, the following is the measurement result of mean and Standard Deviation (SD) in the table 1.

Table 1. Statistics Measurement of EFL Teacher's Multimodal Literacy.

According to Table 1, Indonesian EFL in-service teachers completed multimodal literacy practices

in their teaching materials on average of 71.4. The scores were distributed as expected. The minimum and highest scores were 50 and 90 respectively. It shows that EFL in-service teacher have decent multimodal literacy on exhibit in their teaching materials. The participants in this study had effectively included advantageous multimodality elements into their designs. The design element were varied, such visual, auditory and written elements. The majority of the participants from the junior high school required more improvement to switch from traditional teaching to multimodal methods, according to some of the data.

Table 2. Detailed Statistics Result of Multimodal Literacy

According to table 2, the mean is 71.44 and the median score is 70, which is a respectable performance. Overall, it is thought that EFL in-service teachers must be aware that simply using loose materials is insufficient in the digital era of learning and must be utilized in combination to other resources, even though the mean suggests that the score might be judged appropriate for acquiring multimodal literacy implementation.

To discover more about the effects of multimodal literacy implementation in teaching materials done by EFL in-service teachers in Indonesia. The following qualitative data analysis results provide a percentage breakdown and descriptive discussion of the aspects of multimodal literacy that have been incorporated into the teaching and learning materials as well as the learner's worksheet.

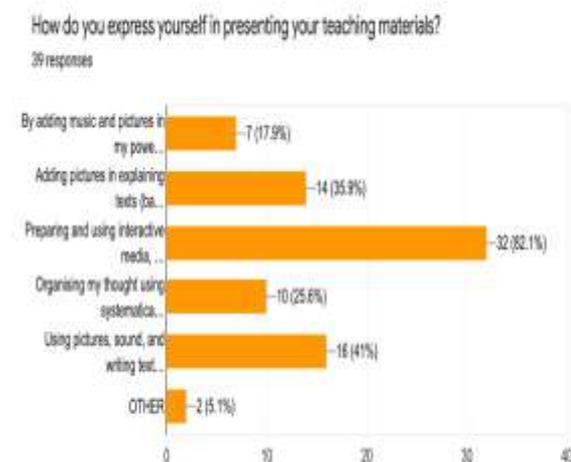
**Results of Open-Ended Questionnaire and Interview**

The following is the results of analysis on open-ended questionnaire. The questions answered by EFL in-service teachers were three questions with the topics of (1) Multimodal structure expression, (2) multimodal structure content, and (3) multimodal structure preference. All comprise of some aspects related to the designs elements of

multimodality integrated in the instructional materials.

Table 3. Analysis Result on the question of the Multimodal Structure Expression

Multimodal Literacy	
N	Valid
	Missing
Mean	71.44
Median	70.00
Std. Deviation	11.619
Range	40
Minimum	50
Maximum	90



Regarding the multimodal structure expression given by the participants, it shows that they have discerning perspective of the multimodal design elements. It is supported by the fact that the participants share a common trait in that they have been teachers for a number of years and have completed a credential program for teacher development in Central Java, Indonesia. As a result, some of the findings are reliable or have helped to advance the application of multimodal literacy practices in the teaching materials.

The information in table 3 above demonstrates how EFL teachers view on multimodal implementation in terms of structure expression embedded in teaching and learning materials in their classroom and online learning environments. The term "multimodality" has an impact on how they use digital media, which is mirrored in the teaching and learning materials.

Regarding the multimodal structural expression's features of multimodal literacy, 82% of all respondents said that the impacts primarily relate to creating and utilizing interactive media, such as online video or film that has been obtained from YouTube. The fact that EFL in-service teachers in this survey said that they must truly prepare before adopting interactive media is not at all surprising. They are already aware of the importance of properly preparing digital media for their students. They responded that the video interactive for their media and material make multimodality pedagogy more challenging.

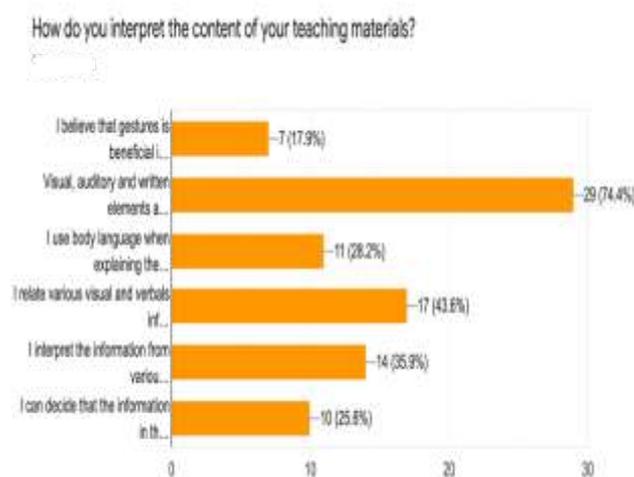
The second highest percentage element is on the media of using pictures, sound and writing texts which they consider important in applying multimodality in the instructional materials. It is 41% with 16 respondents. They highlighted that EFL instructors hardly ever use PowerPoint alone in the classroom or for online instruction. Students are more at ease when instructors use video to present and communicate knowledge to them. In addition to the visual, audio, and written elements, they think the video they are using also contains a distinct speech aspect. It makes sense to include written, audiovisual, and graphic components in digital media.

Meanwhile, adding music and picture in the texts was point to be considered essential for the

participants. In organizing the teacher's thought, few of them mentioned that gestures were needed when explaining some confronted meanings to the learners, or specific terms in a text. However, they noted that textual content in a lengthy text should be present in the teaching materials since students need to examine the text content to develop their critical thinking skills, even though sound and pictures were thought to be important in aiding the learner's understanding.

In addition to the findings of the multimodal structure, the following describes how Indonesian EFL in-service secondary school teachers in this current study perceive the multimodal structure content of the teaching material.

Table 4. Analysis Result od Multimodal Structure Content Questions



The table 4 above shows that mostly EFL in-service teachers decide to use visual, auditory and written elements in understanding the varied texts, it is more than half of respondents, they are 29 persons, it is 74.4%. It relates to the high multimodal design elements integrated in teaching materials during their instructional process. So far, they have already been unconscious that they actually have implemented respectable multimodal media in teaching using various modes especially in listening and speaking. While the second one is 43.6 which is the sub aspect of the way of EFL in-service teachers relate the various visual and verbal information in

explaining texts. One point that should be noted that the EFL teachers need to consider the various resources as the accurate ones or not. They have to adapt well the resources that they adopt in the materials of worksheet.

There is one finding that needs to be paid attention on, that is using body language is such a thing that EFL secondary school in-service teachers do not prefer to do when explaining the materials content they deliver. While, if it is concerned with, they also have to consider that multimodal implementation can also use real humans as the digital media given to the learners in the video shown in LCD in the classroom or video during online learning.

As what already mentioned that the study also has purpose to investigate the EFL teachers' preference of using multimodality implemented in instructional materials, the following is the third aspect of the multimodal structure preference.

**Figure 2. Analysis Result of Multimodal Structure Preference**



On the basis of the results in figure 2 above. The outcomes are interesting to see. By using video to transmit the materials, multimodality can be used to enhance teaching and learning. The video that the EFL in-service teachers used were mostly contained visual (moving picture/ real humans), music or audio, and verbal text (41%) following the visual dan auditory. The second favorite of using multimedia to express the multimodal structure preference was power point which contained of interactive visual and auditory (28.2%).

**Discussion of Teacher's Perception on Multimodality Reflected in the Teaching Materials**

Related to the aspects to be considered by EFL in-service teachers in having multimodality in teaching materials and its effects to the implementation in the teaching and learning process, there are three aspects to be discussed in this part. They are multimodal structure expression, content, and multimodal preference.

The following is the table of teacher's responses regarding the three aspects of multimodality used in the teaching materials design in instructional process by EFL in-service secondary school teachers as the participants in this current study:

**Table 5. Aspects of Multimodality applied in EFL instructional materials**

Aspect	Implementation Aspects
Multimodal Structure Expression	<ul style="list-style-type: none"> <li>- Adding music and pictures in power point</li> <li>- Adding pictures in explaining texts (based on genre)</li> <li>- Preparing and using interactive media, for example video and interactive tasks</li> <li>- Organizing thought using systematically outline and tables on the board</li> <li>- Using pictures, sound, and writing text exist together explicitly in media.</li> </ul>
Content Multimodal Structure	<ul style="list-style-type: none"> <li>- Visual, auditory, and written elements are all necessary in explaining the materials</li> <li>- Relate various visual and verbal information in explaining texts</li> <li>- Using body language when explaining the materials (in speaking)</li> </ul>

	<ul style="list-style-type: none"> <li>- Gesture is somehow beneficial in learner's text comprehension of specific terms</li> <li>- Interpreting information from various resources</li> <li>- Able to decide the information in the media (newspaper, TV, youtube or other media) is true or not.</li> </ul>
Multimodal Structure Preference	<ul style="list-style-type: none"> <li>- Video which contains images and verbal/ spoken text to be listened</li> <li>- Video which contains real visual music/ audio, and verbal text</li> <li>- Power point with interactive visual and auditory</li> <li>- Using the power of verbal expression in explaining</li> <li>- Loose copied materials contains images and written elements</li> </ul>

In this study, it is crucial to look into those three aspects of EFL in-service teachers' multimodal literacy practices because they may have impacts on how multimodality which is incorporated into EFL teaching and learning materials to their lesson plan, classroom administration, time management, and students. It was clarified from the participants' responses that they had a sufficient understanding of multimodality. The reasons were varied, but it was found that the participants used various semiotic resources in preparing their teaching materials.

From the aspect of multimodal structure expression, the participants chose the sub aspects mostly on preparing and using interactive media, for example video and interactive tasks. However, there are some aspects which were not chosen by the participants since they had reasons of limited access if they wanted to download the authentic materials like video and interactive web from the internet. So, the limited access is also one of the reasons in the result of interviewing the participants.

The second aspect is about content in multimodal structure, the participants mostly believe that visual, auditory and written elements are beneficial in explaining the materials. The third aspect is multimodal structure preference applied by EFL teachers, they mentioned and chose the videos which contained real visual, music and verbal text would give advantageous situation in delivering the teaching and learning materials.

The responses related to consequences of using multimodality were varied and, surprisingly, they had a perception that transitioning from the traditional to multimodal using technology gave them a challenging mood. This was based on the findings of the quantitative and qualitative data analysis results, added by the interview result and asking the participants to give examples of what they had designed.

According to the results of the interview, the participants said that when multimodality is used in the teaching and learning process in the classroom, the media that they should prepare and use in their teaching is interactive media or task, then they prefer to use video and it definitely contains real visual, auditory, and written texts that follow the story in the video.

Additionally, they think that in order to effectively teach the information, the elements of textual, auditory, and visual components are all required. They believe that seeing such video content will help students focus better. They said that for more thorough comprehension of the readings, their students must listen intently while viewing. It supports the perspective that using video gives effective time to learners to potentially more comprehension of the texts provided.

Another aspect is regarding print or authentic materials. They prefer using loose materials with the visual and written contents on those materials instead when there is limited access to downloading the movie. The power of visual and written would help their students to get more engaging with the content and context of the text. It is evident that accessing downloadable media, such as videos from free websites like YouTube, is a challenge for EFL in-service teachers in Indonesia when facing with the internet connection and various addresses of

websites. However, preparing the visual and written loose materials to their instructional process is kind of encounter when facing with the teacher's time management and content knowledge.

The following example of loose- materials on a learner's worksheet created by one of the participants used both written and visual elements that were shared to the learners.



**Figure 2. Example of Learner's worksheet designed by the participant in the study**

The respondent was already aware that using worksheets with multimodality in the exercises could assist students in providing thorough responses by utilizing both written and visual components.

The interview findings and the participant-submitted examples have demonstrated how communication media have been modified and arranged by culture into a variety of meaning-making systems. For example, the medium of sounds has been included into speech as a linguistic mode. Then, the movement of the body has been articulated into a variety of modes to express a range of meanings. The picture has been associated with the written element into a comprehensive meaning-making of the learners.

## CONCLUSION

There are two main points that may be drawn from the results. The first is the results of the participants data analysis have showed that the

mean score is 71 and the SD is 11, indicating that the multimodal literacy of the participants is respectable.

The second one is the multimodal literacy practices in terms of multimodal structure expression, content and preference attained by the EFL in-service teachers. It can be summarized that the EFL in-service secondary school teachers picked interactive media, either video and online worksheet as the expression of using multimodality in teaching materials. It is in contrast to the multimodal structure content, the participants chose visual, auditory and written elements to design teaching materials. Meanwhile, power point is also one of the participant's preference instead of video as the multimodal structure in the teaching materials.

Although some of them note that there has to be more access to online resources for downloading media when they cannot design themselves, they have already been effective at using multimedia. Alongside the teaching and learning resources that they have designed; the impact of multimodality literacy is comparatively balanced.

The learner's worksheet materials by having the multimodality that the participants designed have shown that the use of images and written elements in the worksheet has shaped the meaning-making systems and improve the EFL learners' comprehensive retention on the language to be taught in the classroom. Also, the EFL in-service teachers in Indonesia have responded that the inclusion of visual, aural, verbal, or written elements after the text is helpful in the manner when they explain the teaching materials and aid the learners in text understanding.

## REFERENCES

- Bowman, M.A., et.al. (2020) Teachers' Exposure to Professional Development and the Quality of their Instructional Technology Use: The Mediating Role of Teacher's Value and Ability Beliefs. *Journal of Research on Technology in Education*, Vol. 54, 2022- Issue 2. <https://doi.org/10.80/15391523.2020.1830895>

- Camiciottoli, B.C., and I.F. Gomez. (2015). *Multimodal Analysis in Academic Settings: from Research to Teaching*. Routledge Studies in Multimodality; #12. Taylor and Franchis. Routledge: New York. ISBN: 978-1-138-82710-3 (HBK).
- Choi, J., & Yi, Y. (2015). *Integration of Multimodality into Classroom Practices for English Language Learners*. *TESOL Journal*, 7(2), 304 – 327. DOI: 10.1002/tesj.204
- Chandler, P.D. (2017). To What Extent Are Teachers Well Prepared to Teach Multimodal Authoring? *Cogent Education*, 4(1) (Online) Journal <https://doi.org/10.1080/2331186X.2016.1266820>
- Creswell, J. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (4th ed). Upper Saddle River, NJ: Pearson Education
- Eksi, G., & B.Y. Yakisik. (2015). An Investigation of Prospective English Language Teachers' Multimodal Literacy. *Procedia: Social and Behavioral Sciences* 199 (2015) 464 -471. *GlobELT: An International Conference on Teaching and Learning English as an Additional Language*, Antalya- Turkey
- Fjørtoft, H. (2020). Multimodal Digital Classroom Assessment. *Computer and Education*, 152, 103892, doi:10.1016/j.compedu.2020.103892
- Hung, H.T, YC. Jean Chiu, H.C, Yeh. (2012). Multimodal Assessment of and for Learning: A Theory-Driven Design Rubric. *British Journal of Educational Technology*, 44(3). <https://doi.org/10.1111/j.1467-8535.2012.01337.x>
- Jewitt, C. (2008). Multimodality and Literacy in School Classrooms. *Review of Research in Education* 2008, 32(1), 241-267. DOI: 10.3102/0091732X07310586. American Educational Research Association and SAGE Publications.
- Kress, G., and J. Bezemer. (2016). *Multimodality, Learning and Communication: A Social Semiotic Frame*. Routledge
- Lee, H.C. (2014). Using an Arts-Integrated Multimodal Approach to Promote English Learning: A Case Study of Two Taiwanese Junior College Students. *English Teaching*, 13(2), 55 – 75.
- Lim, F., and S.K.Y.Tan., (2018). Developing Multimodal Literacy Through Teaching the Critical Viewing of Films in Singapore. *Journal of Adolescent and Adult Literacy*, 0(0), 1 – 10, doi:10.1002/jaal.882
- Lim, F.V, W. Toh & T.T.H. Nguyen. (2022). Multimodality in the English Language Classroom: A Systematic Review of Literature. *Linguistics and Education*, 69, June 2022, 101048. <https://doi.org/10.1016/j.linged.2022.101048>
- Martins, M.L. (2014). How to Effectively Integrate Technology in the Foreign Language Classroom for Learning and Collaboration. *Procedia – Social and Behavioral Sciences* 174 (2015), 77 -84
- McClure, J., & J. Pilgrim, (2021). Implementing a 1:1 Technology Program in a Rural, Public School: A Study of Perceptions of Technology Integration. *Journal of Research on Technology in Education*, 54(2). <https://doi.org/10.1080/15391523.2020.1852455>.
- McKnight, K., et.al., (2016). Teaching in a Digital Age: How Educators Use Technology to Improve Student Learning. *Journal of Research on Technology and Education*. 48(3). <https://doi.org/10.1080/153911523.2026.1175856>
- Mills, K.A. & L. Unsworth. (2017). Multimodal Literacy. *Oxford Research Encyclopedias. Education*. <https://doi.org/10.1093/acrefore/9780190264093.013.232>
- New London Group. (1996). *A Pedagogy of Multiliteracies: Designing Social Futures*. *Harv.Educ.Rev.* 66, 60-92
- Oldakowski, T. (2014). A Multimodal Assignment That Enriches Literacy Learning: The Problem. *Insight: A Journal of Scholarly Teaching*, 70(9), 70 – 77.

- O'Haloran, K.L., & L. Fei. (2011). Dimensioner of Multimodal Literacy. *Viden om Lesning*, 10. Nationalt Videncenter for Laesning. Technologies in Learning, 10(4), 24-28. <https://doi.org/10.3991/ijet.v10i4.4697>
- Ryan, J., Scott, A., & Walsh, M. (2010). Pedagogy in the Multimodal Classroom: An Analysis of the Challenges and Opportunities for Teachers. *Teachers and Teaching*, 16(4), 447-489. doi:10.1080/13540601003754871
- Souzandehfar, M., et.al. (2014). The Significance of Multimodality/ Multiliteracies in Iranian EFL Learners' Meaning Making Process. *Iranian Journal of Applied Linguistics*, 17(2), 115 – 143.
- Sukyadi, D., Hermawan, B., & Dallyono, R. (2016). Transduction and Transformation of Semiotic Resources in an English Classroom. *Malaysian Journal of ELT Research*, 12(1), 60 - 72.
- Sun, M., (2014). Application of Multimodal Learning in Online English Teaching. *International Journal of Emerging*
- Towndrow, P.A, M.E, Nelson, & W.F.B., Yusuf. (2013). Squaring Literacy Assessment with Multimodal Design. *Journal of Literacy Research*, 45(4), 327-355. Doi:10.1177/1086296x13504155
- Walsh, M. (2010). Multimodal Literacy: What Does It Mean for Classroom Practice. *Australian Journal of Language and Literacy*, 13(3), 211-239
- Yi, Y. (2014). Possibilities and Challenges of Multimodal Literacy Practices in Teaching and Learning English as an Additional Language. *Lang. Linguist. Compass*, 8, 158-169. <https://doi.org/10.1111/Inc3.1276Possibilities>