

READINESS FOR MULTIMODAL TEACHING: EXPLORING EFL PRE-SERVICE TEACHERS' VISUAL LITERACY COMPETENCE

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Abstract

The increasing prominence of visual media in education has required EFL teachers to develop visual literacy. However, in many EFL teacher education contexts, visual literacy remains insufficiently integrated into pedagogical training, resulting in a gap between multimodal demands and teachers' instructional readiness. Limited attention has been paid to how pre-service EFL teachers understand and enact visual literacy within their teaching practices, particularly in under-researched contexts such as Indonesia. To fill this gap, this study aimed to investigate pre-service teachers' perceptions and ability to include visual literacy in teaching. An exploratory mixed-methods design was employed, involving 100 pre-service EFL teachers from a university in South Sumatera, Indonesia. Qualitative data were collected through semi-structured interviews, while quantitative data were obtained using a 4-point Likert-scale questionnaire. Participants were purposively selected based on their engagement with visual media in learning contexts. Data were analyzed using thematic analysis and descriptive statistics. The qualitative results of the study indicated that participants acknowledged visual literacy as a critical-thinking activity for profoundly understanding the underlying meaning of visual media. Furthermore, various aspects of their experience have impacted participants' abilities. The primary identified influences were the extent of experience interpreting pictures, practices, university culture, and resources. The aspects of university preparation, including assignments, pedagogy subjects, and models of lecturing, are factors in developing the pre-service teachers' visual literacy ability. The results suggest that visual literacy development is not solely an individual cognitive skill but is shaped by structured pedagogical experiences within teacher education. This study contributes to the field by highlighting the need to move beyond conceptual awareness toward the systematic integration of visual literacy in EFL teacher education, particularly through curriculum design and pedagogical modelling that support its practical enactment.

Keywords: Multimodality, new literacy, pictures, visual literacy

INTRODUCTION

In recent years, literacy pedagogy has experienced substantial transformation in response to the swift cultural and technological advancements in communication. The parameters of school literacies have been significantly expanded due to the rapid cultural and technological changes in literate forms of communication (Unsworth, 2001). The traditional idea of literacy is gradually being replaced by the concept of multiple literacies, where meaning is created through the interaction of visual, auditory, spatial, and gestural modes (Cope & Kalantzis, 2006). People nowadays are continuously exposed to advertisements on the internet, in newspapers, and in periodicals in today's culture. The interpretation of these multimodal messages necessitates the ability to comprehend visuals, language, and underlying meanings, thereby underscoring the significance of visual literacy. Despite its increasing significance, the development of visual literacy remains inadequately emphasized in educational practice, especially in language classrooms. This oversight creates a critical gap, as engaging with visual meaning is now central, rather than supplementary, to effective communication and learning. Consequently, visual literacy deserves focused attention as a distinct and essential component of contemporary literacy pedagogy.

Furthermore, the primary form of literacy in the twenty-first century has increasingly incorporated visual media, including pictures, graphics, and images of all types (Burmark, 2002; Mitchell, 1995). Reading and writing skills remain essential. However, they are no longer sufficient on their own to address the complexity of contemporary communication. Students must have the ability to process both words and images. They must be able to navigate meaning across words and images and between the real and figurative worlds. The centuries-long dominance of texts and words in culture has been increasingly complemented by the growing significance of visual modes (Felten, 2008). The new "pictorial turn" indicates that images no longer exist primarily for amusement and illustration but rather play a central role in communication and meaning-making. Consequently, there is a growing recognition of the importance of visual literacy. Images are not representations of reality. They actively shape and mediate interpretations of reality. The images around us construct truths, and how we interpret

them dramatically affects how we see the world (Ferraz, 2014). Thus, being visually literate has become a crucial skill for effectively navigating today's information landscapes.

However, living in an image-rich society does not mean that students (or professors and administrators) automatically acquire sophisticated visual literacy skills. Being frequently exposed to visual media does not automatically result in the skill to critically evaluate, understand, or create visual content. From a learning perspective, this suggests that visual literacy development is not a passive outcome of exposure but an active, mediated process that requires cognitive engagement and guided instruction. As pictures or images are powerful tools for communicating simple or complex information, students at all levels must be able to interpret imaged information creatively and critically, including not only information posted in schools or other lectures but also information disseminated on the internet. Drawing on constructivist and sociocultural perspectives, such abilities are developed through interaction, scaffolding, and meaningful practice rather than mere repetition or exposure. These skills can be acquired in a manner comparable to textual literacy. People can learn the ability to recognize, interpret, and apply the various syntax and semantics of different visual forms through training and practice (Felten, 2008). This is why visual literacy is a continuous learning journey that entails honing sophisticated skills to understand, assess, and produce visual materials continuously, particularly when supported by structured pedagogical interventions.

In the realm of education, visual literacy is recognized as a significant teaching resource that enhances learning across various disciplines (Sinatra, 1986). As students gather information through diverse media, literacy education must go beyond the conventional focus on reading and writing to incorporate visual communication methods (Flood & Lapp, 1998). Visual literacy includes traditional aspects like facial expressions, gestures, illustrations, and symbols, as well as modern digital formats such as computer graphics, website design, multimedia presentations, videos, and user-interface structures (Takaya, 2016). To effectively interpret and engage with these multimodal experiences, students require both foundational knowledge and the skill to critically evaluate visual content (Goldstein, 2016). Even though people understand the idea, visual literacy is not consistently included in teaching, especially in training new teachers. Often, visual materials are just extra tools, not the main focus for learning or teaching. Because of this, new teachers might see visual media but are not taught how to understand or teach it well. This shows a gap between knowing visual literacy is important and actually using it in teaching. It highlights the need to see how future teachers learn and build these skills.

In this context, literacy signifies an understanding of the prevalent communication methods of a specific time period (Apkon, 2013). Messaris (2009) outlined four primary objectives of visual literacy: improving the understanding of visual media across different formats; enhancing cognitive skills like spatial reasoning; raising awareness of media manipulation and distortion; and fostering the ability to both create and interpret visual content. Consequently, individuals who are visually literate act as both discerning consumers and creators of visual information (Ma & Semali, 2003). These goals show the many benefits of visual literacy. But they also suggest that learning it is complex and needs careful teaching. In many schools, these skills are not clearly taught or included in teacher training. Therefore, new teachers might know about visual literacy but are not ready to use it in class. This gap between what is expected and what is taught shows the need to study how new teachers learn and understand visual literacy during their training.

The significance of visual literacy in education has been extensively documented. Studies reveal that university students frequently lack the comprehensive knowledge and training required to proficiently interpret and produce visual content (Metros & Woolsey, 2006). Higher education students must possess a basic understanding of visual communication to effectively interpret diagrams, symbols, and graphical information that are commonly found in instructional materials (Matusitz, 2005). Beyond learner-related challenges, research also points to limitations in teacher preparation and instructional practices. For instance, Robertson (2007) discovered that English teachers received limited formal training in visual literacy and often depended on self-guided learning. This suggests a lack of systematic support in teacher education. At the same time, a growing body of studies demonstrates the pedagogical potential of visual literacy when it is intentionally integrated into instruction. Nausa & Ricardo (2007) illustrated that visual grammar tables aid in both language acquisition and the development of visual-cognitive skills. Kılıçkaya and Krajka (2012) demonstrated that the creation of web-based comic books enhanced students' grammar learning and motivation. Similarly, Takaya (2016) observed that university EFL students' ability to interpret advertisements improved when they engaged in independent information searches, which also broadened their background knowledge and global awareness. Additionally, Alpan and Mart (2020) found that visual literacy activities significantly boosted primary school students' English performance and engagement. Collectively, these studies highlight that although visual literacy offers clear pedagogical benefits, both students and teachers often lack adequate preparation to engage with it effectively. This suggests that the problem lies not in the absence of potential, but in the insufficient integration of visual literacy into educational practices, especially within teacher education contexts.

While there is increasing evidence supporting the advantages of visual literacy in language education, most research has concentrated on students rather than those training to become teachers. Despite the growing use of visual media for instructional purposes, there is still a lack of empirical studies on the visual literacy skills of pre-

service teachers, especially within the EFL context. Current research has often concentrated on the results of visual literacy activities or standalone teaching interventions, paying little attention to how pre-service teachers understand visual literacy and apply that knowledge in their teaching methods. Additionally, there is a lack of studies exploring both their views and their self-assessed capability to implement visual literacy in classroom settings, especially through integrated methodological approaches. As future educators responsible for creating learning materials and conducting classroom instruction, pre-service teachers must possess sufficient skills and confidence to integrate visual literacy into their teaching methods. To fill this research gap, the current study examines how pre-service EFL teachers perceive visual literacy and their capability to apply it in classroom settings. By addressing both conceptual understanding and pedagogical enactment within a specific EFL context, this study seeks to provide a more comprehensive account of pre-service teacher preparedness in visual literacy. Understanding their preparedness is crucial, as teachers are instrumental in guiding students to critically analyze and create multimodal texts. By promoting visual literacy, educators can aid students in developing comprehensive literacy skills that extend beyond traditional print texts, thereby improving learning across various subjects (Seglem & Witte, 2009). This study is guided by the following research questions:

1. What are pre-service EFL teachers' perception on visual literacy?
2. How is pre-service teachers' readiness to incorporate visual literacy in their future teaching?

Visual Literacy

The notion of visual literacy has undergone significant evolution over time, encompassing a diverse array of perceptual, cognitive, and critical skills. (Debes, 1969) coined the term 'visual literacy' to describe a range of vision competencies that a person can acquire through seeing and simultaneously acquiring and integrating other sensory experiences. This initial idea highlights the importance of engaging with visual stimuli through perception and experience as the basis for comprehending visuals. Building on this foundation, later scholars extended the idea to incorporate more sophisticated elements of interpretation and communication. Visual literacy involves acquiring the ability to analyze image content, comprehend its societal influence, and thoughtfully discuss the purpose of its creation and the intended audience (Villamizar, 2018). This perspective moves beyond perception toward meaning-making and communicative intent, framing visual literacy as a practice embedded in social contexts. In this regard, individuals who are visually literate can not only understand visual components but also employ them innovatively for communication and self-expression. The development of these skills is essential for proper human learning. They enable a visually literate individuals to discriminate and interpret the visible behaviors, objects, and symbols they encounter in the surroundings, whether they are natural or artificial. Through the innovative application of these skills, people can communicate with others. Through the appreciative use of these skills, someone can comprehend and appreciate the visual communication masterworks.

The redefinition of literacy has further emphasized the significance of visual forms. Whereas literacy was once primarily linked to print-based abilities, it is now recognized as a wider array of skills that necessitate critical and creative interaction with various modes of representation (Gee, 2014). This shift situates visual literacy within the broader framework of multiliteracies, where meaning is constructed through the interaction of diverse semiotic resources. Furthermore, Avgerinou (2007) elaborated that in the context of human intentional visual communication, visual literacy refers to a group of primarily acquired abilities, i.e., the ability to understand (read) and use (write) images, as well as the ability to think and learn in terms of images. This introduces a cognitive dimension, highlighting the role of visual literacy in shaping how individuals process and organize knowledge. Similarly, Fleckenstein et al. (2007) highlight the necessity of thoroughly analyzing the ways in which visual and written narratives are shaped by social and historical contexts, focusing on the ideological and discursive aspects of visual communication. In this view, visual literacy entails understanding how prevailing representations can uphold certain perspectives while sidelining others. More recently, Bowen (2017) emphasized that underscores the interpretive variability of visual texts, emphasizing that meanings are not fixed but are shaped by context, audience, and experience. This highlights the contextual and interpretive flexibility of visual literacy, reinforcing its role as a critical skill for navigating diverse communicative environments. In short, all these viewpoints indicate that visual literacy is a complex construct, involving perceptual awareness, cognitive processing, communication skills, and critical interpretation, rather than being a single skill.

Visual Literacy in Educational Contexts

In the educational realm, there is a need for systematic visual literacy education in universities and evaluation of their contribution to the individual (Kędra, 2018). Visual literacy should not be regarded as a secondary skill; instead, it demands explicit instructional focus to aid learners in interpreting and constructing meaning from visual texts. Visual literacy education raises concerns about the visual image the student produces and how to interpret the visual image presented to him/her. This anxiety is essential for permanent learning. From a pedagogical perspective, this process is not merely affective but cognitive, involving structured engagement with visual

representations to support deeper learning. The visuals allow us to process and remember the information in the student's mind.

In addition, future educators must have good visual literacy abilities to enhance their students' cognitive skills and critical thinking. Teaching visual literacy in classrooms of various disciplines is vital to help students learn more quickly and make sense of the vast quantity and variety of information they encounter daily (Branch & Bloom, 1995). By gaining visual literacy, individuals increase their cognitive skill sets and access to potent new creative thought tools (Messaris, 2009). However, these benefits depend on how visual materials are pedagogically designed and integrated, rather than on exposure alone.

Visual literacy promotes the growth of students' critical thinking skills (Considine & Haley, 1999). Meaningful learning happens when students attend to incoming words and images, mentally organize them into graphical and verbal representations, and then integrate these pictorial and verbal representations with another and with prior knowledge (Mayer, 2003). This highlights that visual literacy development is grounded in cognitive processing mechanisms, requiring guided instruction rather than passive consumption of images. As argued by Britsch (2009), visual thinking is the foundation of language acquisition, and those language instructors should focus on sophisticated and informed instructional uses of visual literacy and visual thinking based on a solid understanding of visual literacy as the foundation of language acquisition and development. Therefore, pre-service teachers should be equipped with visual literacy skills since the skills are pre-requisite for language language learners.

Although visual literacy is widely acknowledged as important, its integration into EFL and teacher education settings faces obstacles. Often, visual resources are utilized mainly as supplementary tools rather than being central to teaching, and pre-service teachers frequently receive minimal instruction on how to critically engage with or teach visual content. This creates a disconnect between theoretical understanding and practical application, especially in preparing future educators to effectively incorporate visual literacy into language instruction. Therefore, it is essential to equip pre-service teachers with visual literacy skills to help learners navigate multimodal communication.

METHOD

This study utilized an exploratory sequential mixed-method design, a two-phase approach that integrates qualitative and quantitative data collection to achieve a comprehensive understanding of the research topic (Creswell & Clark, 2007). The selection of a mixed-method design was informed by several considerations. First, given that pre-service teachers' perceptions of visual literacy are context-dependent and not yet well-defined in the EFL literature, an initial qualitative phase was necessary to explore how participants conceptualize visual literacy and describe their experiences. The findings from this phase were then used to inform the design of the quantitative instrument, allowing the study to examine the extent and distribution of these perceptions and self-reported abilities across a larger sample. This sequential process enabled the study to move from in-depth exploration to broader generalization, aligning directly with the research aim of investigating both perception and the ability to enact visual literacy in teaching contexts. Furthermore, the employment of mixed methods allows researchers to attain a more nuanced and in-depth understanding of the issues under investigation by integrating qualitative insights with quantitative patterns (Bergman, 2010).

Participants

The study engaged 100 pre-service EFL teachers enrolled in an English education program at a university in South Sumatera, Indonesia. They were purposively selected based on specific inclusion criteria related to their prior exposure to visual literacy concepts. Participants had completed coursework in pedagogy and instructional media, where visual materials and related terminology were introduced. Their familiarity with visual literacy vocabulary was further confirmed through a brief preliminary screening questionnaire, which included items assessing their recognition and understanding of key concepts (e.g., interpretation of images, use of visuals in teaching). Only those who demonstrated basic familiarity with these concepts were included in the study. In addition, based on the preliminary study, they acknowledged their day-to-day engagement with visuals, making them the suitable context for the study.

Data Collection

The data collection instruments were designed by adapting a visual literacy framework by Farrell (2015). The framework was chosen due to its relevance to the study's purpose as it was employed to portray visual literacy skills in teacher preparation program. Qualitative data were first collected to explore participants' perceptions, and quantitative data were subsequently obtained to examine the distribution of these perceptions and self-reported abilities across a larger sample.

The qualitative data of this study were obtained by conducting a semi-structured interview. Data was gathered through interviews with six pre-service English teachers, who served as representatives, to explore their

perceptions. They were purposefully selected participants representing varied levels of engagement with visual media. The interview protocol was developed based on the adapted framework, with questions targeting participants' understanding, experiences, and perceived ability to use visual literacy in teaching. To facilitate the participants in sharing pertinent and crucial information related to the desired data (Siregar et al., 2020), the interview process was conducted in the Indonesian language. The research employed digital recording to capture each phase of the interview process, which aided in the transcription of the data. The recordings were transcribed verbatim and subsequently reviewed for accuracy. Once transcribed and condensed, the interview transcripts were shared with the study participants. This approach was used to verify that the information gathered from the interviews accurately reflected the participants' intended meanings. This process, known as member verification or member checking, was conducted to improve the study's credibility and validity (Birt et al., 2016).

On the other hand, quantitative data were gathered by disseminating 4-likert scale questionnaire to the participants. The questionnaire items were derived from the same framework dimensions used in the qualitative phase, enabling alignment between both data strands. Before disseminating the questionnaire to the participants, a pilot study was conducted with a small group of respondents to assess clarity, relevance, and comprehensibility of the items, thereby supporting content validity. Furthermore, Cronbach's alpha was calculated to examine the reliability of the adapted questionnaire items. The Cronbach's alpha of 0.82 (> 0.7) indicates that the items are reliable to be used for the study. In addition to face validity, content validity was ensured through alignment with the theoretical framework and expert-informed item construction. Regarding trustworthiness, this study employed method triangulation to reach credibility by systematically comparing and integrating findings from the qualitative interviews and quantitative questionnaire to examine consistency and complementarity across data sources (Guba, 1981).

Before the data collection, regarding research ethics, consent forms were distributed to the participants. Such a step was executed to ensure ethical transparency and participant autonomy (Dörnyei & Griffee, 2010). The consent form included detailed information about the study purpose, procedures of the study, descriptions of any risks and benefits, a statement of the extent to which the results will be kept confidential, and a statement indicating that the participation is voluntary. Furthermore, through the form, participants were told that they could withdraw and refuse to participate at any time without any penalties.

Data Analysis

The qualitative data was analyzed using thematic analysis (Braun & Clarke, 2006) to identify recurring patterns and themes related to the perspectives of learners and the challenges they have faced. The process of conducting thematic analysis involved an iterative approach to distilling the data into a concise set of themes or categories (Creswell, 2012). NVIVO 12 software was utilized to store and systematically arrange the transcripts. This organization was crucial for conducting a thematic analysis, which involved developing categories through several rounds of coding: open, axial, and selective coding (Creswell, 2012). The data were read multiple times and meticulously analyzed to identify recurring themes and categories (Yin, 2009). The data were categorized according to the coded themes to display pertinent information applicable to the problems. The coded materials were displayed in the data presentation as conceptual charts and interview transcriptions. Finally, the study's findings were thoroughly examined. This process followed the six-phase framework for thematic analysis. To protect participant anonymity, pseudonyms were used when their statements were reported.

In addition, the quantitative data from the study were analyzed using descriptive statistics. Specifically, percentages were calculated to summarize participants' responses and identify general trends related to their perceptions and self-reported abilities. This level of analysis was considered appropriate given the exploratory nature of the study and its focus on providing an overview rather than making inferential claims.

FINDINGS

Pre-service EFL Teachers' Perceptions on Visual Literacy

This section presents the integrated findings on pre-service EFL teachers' perceptions of visual literacy and their readiness to incorporate it into teaching practices. Drawing on both qualitative and quantitative data, the analysis is organized into three overarching themes that capture recurring patterns across participants' responses. These themes reflect how participants conceptualize visual literacy, how they engage with visual interpretation, and how their experiences shape their perceived readiness to apply visual literacy in instructional contexts.

Table 1. Readiness towards visual literacy

No	Perception of readiness to incorporate visual literacy	Percentage
1	I am familiar with the use of picture/ visual media.	100 %
2	I can understand and describe the information of a chart.	87.5 %
3	I can understand and describe the information of a picture.	75 %
4	I can understand and describe the information of a symbol.	87.5 %
5	I can understand and describe the information of a graph.	96 %
6	I can understand and describe the information of a diagram.	66 %
7	I usually provide pictures when presenting a piece of information.	100%
8	I can decide the suitable visual media to represent particular information.	98%
9	Visual information helps me breaking down concepts.	94%
10	Visual information gives more complete information.	96%
11	Visual information facilitates the understanding of complex ideas.	98%
12	Visual information helps me express my ideas and thoughts about something.	100%
13	I will include visual media in my future class.	100%

Visual Literacy as a Cognitive Tool for Meaning-making

The findings reveal that participants consistently view visual literacy as a cognitive tool that aids in comprehension and meaning-making, especially when engaging with complex or abstract information. Participants do not see visuals as merely supplementary. However, they regard them as essential to understanding, indicating an awareness of visual literacy as an interpretive practice. This pattern emerges in both qualitative and quantitative data. Qualitatively, participants highlighted that visual representations, such as images, diagrams, and charts, simplify complex ideas and make information more accessible. They also linked visual literacy to the ability to interpret implied meanings, suggesting a critical dimension beyond surface-level understanding.

“Visual information makes a concept easily understood by people.” (participant 1)

“It makes us understand something more easily. Especially for visual learners, visual information is really helpful.” (participant 3)

Furthermore, participants emphasized that visual elements like color, layout, and symbolic representation not only enhance engagement and curiosity but also facilitate deeper cognitive processing.

“Visual information sometimes is more interesting than words because it is eye-catching, colorful, and can increase the level of curiosity.” (participant 1)

“When I read something complicated, it will help me understand the text if there are any pictures or diagrams.” (participant 5)

Quantitative data supports this view, with most participants agreeing that visual media simplify complex concepts (item 9), enhance comprehension (item 11), and offer thorough depictions of information (item 10). Taken together, these results indicate that participants have a fairly robust conceptual grasp of visual literacy as a process of meaning-making, consistent with its cognitive and interpretive aspects.

Strategic but Uneven Engagement with Visual Interpretation

Although participants show an understanding of visual literacy as an interpretive activity, their actual involvement seems to be strategic yet inconsistent. The qualitative data indicate that participants use intentional methods, such as detailed observation, contextual deduction, and gathering additional information, to make sense of visual content. This suggests that visual literacy is practiced as an active process rather than merely passive viewing.

“I usually try to find more information from the internet. Sometimes it is difficult to understand something that we have never seen before.” (participant 4)

“I pay attention and try to understand what the information means.” (participant 3)

Nevertheless, the quantitative results add complexity to this scenario. Although participants generally recognize visual media (item 1), they expressed challenges in understanding specific visual formats, especially diagrams, charts, and symbols (items 2–6). Diagrams emerged as the most difficult, indicating that more abstract visual formats demand greater interpretive skills and background knowledge. This discrepancy highlights a gap between perceived familiarity and actual interpretive ability. While participants are used to engaging with visual media, they do not consistently exhibit a thorough understanding of all visual types. This finding underscores a

significant limitation in their visual literacy development: mere exposure to visual content does not inherently lead to interpretive expertise.

Experience-Based Development and Pedagogical Readiness

Participants frequently credited their development of visual literacy to previous experiences and exposure, especially in university learning environments. They noted that regular engagement with visual content, such as lectures, presentations, and digital media, improved their skills in interpreting and utilizing visuals.

“It is true that my experience with pictures helps me in understanding topics delivered through images.” (participant 2)

“Of course! My experience will enrich my digital literacy knowledge.” (participant 6)

Their development through experience is evident in their reported willingness to integrate visual literacy into their teaching methods. Quantitative data reveals that participants are confident in choosing suitable visual media (item 8) and utilizing visuals to convey ideas (item 7). They also showed a strong inclination to incorporate visual components into their future teaching endeavors.

However, this readiness seems to be primarily based on experiential knowledge rather than formal educational training. Although participants feel equipped to use visuals, their previously noted challenges in interpreting certain visual formats suggest that their readiness might be incomplete. This highlights a crucial point that although pre-service teachers may be adept at using visual media, they may not yet be fully prepared as critical interpreters or educational facilitators of visual literacy.

DISCUSSION

The discussion is organized around three key themes identified in the findings, facilitating a more focused interpretation of how pre-service EFL teachers conceptualize and develop visual literacy within their educational context. Instead of merely reiterating participants' responses, this section interprets these patterns in relation to existing literature and broader pedagogical implications.

Visual Literacy as a Cognitive Tool for Meaning-making

The findings of this study indicate that pre-service teachers view visual literacy not just as the use of images, but as a cognitive tool that aids in understanding and creating meaning. This reflects a relatively sophisticated understanding of visual literacy as an interpretive practice, rather than merely a decorative or supplementary aspect of teaching. This perspective is consistent with Mayer's (2003) cognitive theory of multimedia learning, which suggests that meaningful learning happens through the combination of verbal and visual information. The participants' focus on how visuals clarify complex concepts and improve comprehension aligns with this dual-processing model. However, the findings go further by demonstrating that learners actively recognize and express this cognitive role, rather than just benefiting from it unconsciously.

At the same time, the strong focus on visual aids highlights an important consideration. While participants see visuals as naturally enhancing understanding, this view risks oversimplifying the role of visual literacy. As Ainsworth et al. (2011) point out, visual representations are powerful but need appropriate interpretation strategies to be effective. Therefore, the findings imply that pre-service teachers may highly value visuals, but their grasp of how meaning is constructed through visuals might still need further pedagogical development.

Strategic but Uneven Engagement with Visual Interpretation

An important insight from the findings is the gap between participants' familiarity with visual media and their actual interpretive skills. Although participants show strategic engagement, including careful observation, inferring context, and seeking additional information, their struggles with more abstract visual forms (e.g., diagrams and symbols) highlight that visual literacy development is inconsistent. This aligns with previous research (see Metros & Woolsey, 2006) indicating that exposure to visual materials does not automatically result in visual literacy. The current study reinforces this by demonstrating that even frequent interaction with visuals, especially in digital environments, does not ensure deep interpretive abilities.

This finding introduces a significant tension: visual literacy seems to develop through experience, yet this development heavily relies on prior knowledge. Participants themselves recognized that understanding visual meaning requires background knowledge and contextual awareness. This suggests that visual literacy is not merely a skill of 'seeing,' but a cognitively demanding process that integrates prior knowledge, inference, and critical evaluation. From a pedagogical standpoint, this implies that teacher education programs cannot assume that familiarity with visuals equates to competence. Instead, there is a need for more explicit instruction on how

to interpret and teach various types of visual representations, particularly those that are abstract or discipline-specific.

Experience-Based Development and Pedagogical Readiness

The findings further reveal that the development of visual literacy among pre-service teachers is predominantly influenced by experience, particularly through exposure to visual materials within university learning environments. Participants credited their skills to frequent interactions with visuals in lectures, presentations, and academic texts, indicating that visual literacy evolves through sustained engagement rather than formal instruction. This observation aligns with Felten's (2008) assertion that visual literacy is a learned competency that matures over time through practice. However, the current study expands this understanding by identifying a potential limitation: while experience cultivates familiarity and confidence, it does not necessarily guarantee pedagogical readiness.

Although participants expressed high confidence in employing visual media in teaching, their earlier struggles with interpreting certain visual forms suggest that this readiness might be incomplete. In essence, they may be adept users of visual tools but are not yet fully prepared to guide students in critically interpreting visual information. This discrepancy between confidence and competence carries significant implications for teacher education. It suggests that programs should go beyond merely providing exposure to visual materials and instead incorporate explicit training on teaching visual literacy as a critical and analytical skill. Without such support, pre-service teachers may perpetuate superficial uses of visuals in their future classrooms.

Implication

The results indicate that visual literacy among pre-service EFL teachers is progressing in significant yet inconsistent ways. Although participants exhibit a strong understanding of the importance of visuals and are prepared to incorporate them into their teaching, their development is primarily experiential and reliant on existing knowledge. This underscores the necessity for a more structured and explicit incorporation of visual literacy into teacher education programs, especially in enhancing critical interpretation skills and pedagogical application.

CONCLUSION

This study explored pre-service EFL teachers' perceptions of visual literacy and their preparedness to integrate it into their teaching practices. The findings reveal that although participants exhibit a strong awareness of the importance of visual literacy and express confidence in utilizing visual media, their development is predominantly experience-based and inconsistent, especially regarding greater interpretive skills. The study contributes to the field of EFL teacher education by highlighting a significant gap between familiarity with visual materials and the ability to critically interpret and pedagogically apply them. This suggests that visual literacy should not be considered an implicit outcome of exposure but rather a skill that requires explicit and structured integration within teacher education programs. To sum up, the findings emphasize the need to reconceptualize visual literacy as a core component of teacher preparation, particularly in equipping future educators to navigate and teach within increasingly multimodal learning environments.

REFERENCES

- Ainsworth, S., Prain, V., & Tytler, R. (2011). Drawing to Learn in Science. *Science*, 333(6046), 1096–1097. <https://doi.org/10.1126/science.1204153>
- Alpan, G. B., & Mart, Ö. A. (2020). Visual literacy and teaching English: A research on elementary school students. *Journal of Educational and Instructional Studies in the World*, 10(3), 10–21.
- Apkon, S. (with Scorsese, M.). (2013). *The Age of the Image: Redefining Literacy in a World of Screens* (1st ed). Farrar, Straus & Giroux.
- Avgerinou, M. D. (2007). Towards a Visual Literacy Index. *Journal of Visual Literacy*, 27(1), 29–46. <https://doi.org/10.1080/23796529.2007.11674644>
- Bellato, N. (2013). Infographics: A visual link to learning. *eLearn*, 2013(12), 2556598.2556269. <https://doi.org/10.1145/2556598.2556269>
- Bergman, M. M. (Ed.). (2010). *Advances in mixed methods research: Theories and applications* (Reprinted). SAGE.
- Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member Checking: A Tool to Enhance Trustworthiness or Merely a Nod to Validation? *Qualitative Health Research*, 26(13), 1802–1811. <https://doi.org/10.1177/1049732316654870>

- Bowen, T. (2017). Assessing visual literacy: A case study of developing a rubric for identifying and applying criteria to undergraduate student learning. *Teaching in Higher Education*, 22(6), 705–719. <https://doi.org/10.1080/13562517.2017.1289507>
- Branch, R. C., & Bloom, J. R. (1995). The role of graphic elements in the accurate portrayal of instructional design. *Paper Presented at the Annual Conference of the International Visual Literacy Association*, 1–14.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Britsch, S. (2009). ESOL Educators and the Experience of Visual Literacy. *TESOL Quarterly*, 43(4), 710–721. <https://doi.org/10.1002/j.1545-7249.2009.tb00197.x>
- Burmark, L. (2002). *Visual literacy: Learn to see, see to learn*. Association for Supervision and Curriculum Development.
- Considine, D. M., & Haley, G. E. (1999). *Visual messages: Integrating imagery into instruction* (2. ed). Teacher Ideas Press.
- Cope, B., & Kalantzis, M. (Eds.). (2006). *Multiliteracies: Literacy learning and the design of social futures* (repr). Routledge.
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Pearson Education, Inc.
- Creswell, J. W., & Clark, V. L. P. (2007). Choosing a mixed methods design. In J. W. Creswell & V. L. P. Clark (Eds.), *Designing and conducting mixed methods research* (pp. 58–88). SAGE.
- Davidson, R. (2014). Using Infographics in the Science Classroom: Three Investigations in Which Students Present their Results in Infographics. *The Science Teacher*, 81(3), 34–39. https://doi.org/10.2505/4/tst14_081_03_34
- Debes, J. (1969). The loom of visual literacy: An overview. *Audiovisual Instruction*, 14(8), 25–27.
- Dörnyei, Z., & Griffee, D. T. (2010). *Research methods in applied linguistics*.
- Farrell, T. A. (2015). Visual Literacy (VL) in Teacher Preparation: Measurement to Direction. *Journal of Visual Literacy*, 34(1), 89–104. <https://doi.org/10.1080/23796529.2015.11674724>
- Felten, P. (2008). Visual Literacy. *Change: The Magazine of Higher Learning*, 40(6), 60–64. <https://doi.org/10.3200/CHNG.40.6.60-64>
- Fleckenstein, K. S., Hum, S., & Calendrillo, L. T. (Eds.). (2007). Testifying Seeing and Saying in World Making. In K. S. Fleckenstein & S. Hum, *Ways of Seeing, Ways of Speaking*. Parlor Press, LLC.
- Flood, J., & Lapp, D. (1998). Broadening Conceptualizations of Literacy: The Visual and Communicative Arts (Visual Literacy). *The Reading Teacher*, 51(4), 342–344.
- Gee, J. P. (2014). *The social mind: Language, ideology, and social practice*. Common Ground Publishing, LLC.
- Goldstein, B. (2016). Visual literacy in English language teaching. In *Cambridge Papers in ELT series*. Cambridge University Press.
- Greene, J. C. (2007). *Mixed methods in social inquiry* (1st ed). Jossey-Bass.
- Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *ECTJ*, 29(2), 75. <https://doi.org/10.1007/BF02766777>
- Kędra, J. (2018). What does it mean to be visually literate? Examination of visual literacy definitions in a context of higher education. *Journal of Visual Literacy*, 37(2), 67–84. <https://doi.org/10.1080/1051144X.2018.1492234>
- Kılıçkaya, F., & Krajka, J. (2012). Can the use of web-based comic strip creation tool facilitate EFL learners' grammar and sentence writing? *British Journal of Educational Technology*, 43(6). <https://doi.org/10.1111/j.1467-8535.2012.01298.x>
- Ma, Y., & Semali, L. (2003). Understanding Digitization and the Visual Experience in the Age of the Internet: Principles, Practices and Challenges. *Journal of Visual Literacy*, 23(2), 84–102. <https://doi.org/10.1080/23796529.2003.11674594>
- Matusitz, J. M. A. (2005). The Current Condition of Visual Communication in Colleges and Universities of the United States. *Journal of Visual Literacy*, 25(1), 97–112. <https://doi.org/10.1080/23796529.2005.11674619>
- Mayer, R. E. (2003). The promise of multimedia learning: Using the same instructional design methods across different media. *Learning and Instruction*, 13(2), 125–139. [https://doi.org/10.1016/S0959-4752\(02\)00016-6](https://doi.org/10.1016/S0959-4752(02)00016-6)
- Messaris, P. (2009). *Visual "literacy": Image, mind, and reality* (Repr). Westview Press.
- Metros, S. E., & Woolsey, K. (2006). Visual Literacy: An Institutional Imperative. *EDUCAUSE Review*, 41(3), 80–81.
- Milbourn, A. (2013). A Big Picture Approach: Using Embedded Librarianship to Proactively Address the Need for Visual Literacy Instruction in Higher Education. *Art Documentation: Journal of the Art Libraries Society of North America*, 32(2), 274–283. <https://doi.org/10.1086/673517>
- Mitchell, W. J. T. (1995). *Picture theory: Essays on verbal and visual representation* (Paperback ed., 6. [Nachdr.]). Univ. of Chicago Press.

- Nausa, T., & Ricardo, A. (2007). Grammar Charts Analysis: A Tool to Promote Students' Visual Literacy and Autonomous Learning. *Online Submission*.
- Pohio, L., & Lee, M. (2012). Re-visualising innovative online learning spaces in an early childhood teacher education programme. *Journal of Open, Flexible and Distance Learning*, 16(1), 99–107. <https://doi.org/10.61468/jofdl.v16i1.97>
- Robertson, M. S. M. (2007). *Teaching visual literacy in the secondary English/language arts classroom: An exploration of teachers' attitudes, understanding and application* [Doctoral Dissertation]. Kansas State University.
- Salazar, G. U., & Larenas, C. D. (2018). Using an Audiovisual Materials-Based Teaching Strategy to Improve EFL Young Learners' Understanding of Instructions. *HOW*, 25(2), 91–112. <https://doi.org/10.19183/how.25.2.419>
- Seglem, R., & Witte, S. (2009). You Gotta See It to Believe It: Teaching Visual Literacy in the English Classroom. *Journal of Adolescent & Adult Literacy*, 53(3), 216–226. <https://doi.org/10.1598/JAAL.53.3.3>
- Shabiralyani, G., Hasan, K. S., Hamad, N., & Iqbal, N. (2015). Impact of Visual Aids in Enhancing the Learning Process Case Research: District Dera Ghazi Khan. *Journal of Education and Practice*, 6(19), 226–233.
- Sinatra, R. (1986). *Visual literacy connections to thinking, reading and writing*. Thomas.
- Siregar, R. A., Fauziati, E., & Marmanto, S. (2020). An exploration on EFL teachers' perceptions of effective 21st-Century pedagogical competencies. *JEELS (Journal of English Education and Linguistics Studies)*, 7(1), 1–24.
- Takaya, K. (2016). Exploring EFL students' visual literacy skills and global understanding through their analysis of Louis Vuitton's advertisement featuring Mikhail Gorbachev. *Journal of Visual Literacy*, 35(1), 79–90. <https://doi.org/10.1080/1051144X.2016.1197561>
- Unsworth, L. (2001). *Teaching multiliteracies across the curriculum: Changing contexts of text and image in classroom practice*. Open University.
- Villamizar, A. G. (2018). Examining intersections between visual literacy and digital technologies in English language programs for higher education. *Journal of Visual Literacy*, 37(4), 276–293. <https://doi.org/10.1080/1051144X.2018.1522089>
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed). Sage Publications.