THE IMPACT OF
Visual Arts on Literacy

A vital skill for success in school and throughout life, literacy is the ability to use language to read, write, speak, listen, comprehend, and communicate. Worldwide, children's literacy skills are strongly linked to parents' educational levels, especially that of the mother (Morris, 2021).

AUTHORS

Dr. Theresa Haugen
The Art of Education University

Dr. Heather Crockett
The Art of Education University

Students can potentially overcome disadvantages through a literacy-rich curriculum threaded through other disciplines to boost literacy learning experiences and skills. Cheri Benafield (2007), former president of the California Reading Association, cited reading as the number one predictor of student achievement, adding literacy across the curriculum as the best way to offer reading practice and support. An art-centered curriculum that naturally integrates literacy and encourages critical thinking provides multiple ways of expressing, interpreting, reflecting, and listening, which can build or strengthen a literacy path.

LITERACY DEFINITIONS

Within research, many literacy terms emerge:

Arts literacy occurs when students authentically create and understand various art forms using discipline-specific language and artistic techniques, including representational and compositional meanings. Arts literacies allow art educators to "intentionally and comprehensively develop a full range of literacies" through reading, writing, language expressions, and visual investigations (Barton et al., 2022, p.2).

Disciplinary literacy acknowledges the language of each discipline, including visual art, and the specific ways each discipline's language creates meaning for students.

Disciplinary literacy instruction aims to engage students in the authentic activities of the disciplines they study. Given that texts in various disciplines are designed to serve different purposes and audiences, disciplinary literacy instruction is infused with opportunities to develop multiple literacies. (Gabriel, 2023, p. 29)

Epiliteracy is a "new literacy paradigm in a digitally networked multimodal world" (Huber et al., 2015, p. 45). Huber et al. (2015) recommend that schools embrace epiliteracy because it closely matches how children in a digital world communicate and create meaning.

The New London Group coined **multiliteracy**, which refers to a literacy theory that acknowledges diversity through multimodal forms (Cope, B., & Kalantzis, M., 2009).

Visual literacy is the ability to investigate, analyze, and interpret visual imagery and communicate ideas visually through critical thinking and decision-making (Vanderlip Taylor & Buchman, 2022; National Art Education Association, n.d.).

VISUAL LITERACY DEFINED

Research provides vast and varied definitions of visual literacy; however, Argerinou (2003) found more commonalities than differences. In 1969, John Debe, founder of the International Visual Literacy Association, coined the term visual literacy, defining it as "a group of vision-competencies a human being can develop by seeing and at the same time having and integrating other sensory experiences" (Beatty, 2013, p. 34). Visual literacy is the ability to read, interpret, comprehend, analyze, negotiate, and question visual imagery and communicate that understanding through art creation, demonstrating critical thinking, problem-solving, storytelling, and decision-making skills (National Art Education Association, n.d.; Nurse, 2020). While visual literacy is commonly associated with art and artmaking, the concept is more

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holistic and includes language, communication, and interaction (Nurse, 2020). Debes stated,

Visual Literacy refers to a group of vision competencies a human being can develop by seeing and simultaneously having and integrating other sensory experiences. The development of these competencies is fundamental to normal human learning. When developed, they enable a visually literate person to discriminate and interpret the visible actions, objects, and symbols, natural or man-made, that they encounter in the environment. Through the creative use of these competencies, they can communicate with others. (para. 8)

Art curriculums can expand literacy practice, enhancing reading, writing, and language through visual literacy. Teachers often ask students to express their thoughts regarding a text through imagery and artmaking, but visual literacy expands literacy practice much more broadly. Visuals allow people to communicate faster through decoding (Metros, 2008). One benefit of visual literacy is reducing a learner's cognitive load and clarifying complex ideas and concepts.

FRAMEWORKS

The theoretical framework of visual literacy for images is rooted similarly to text in reading, analyzing, and understanding (Pardieck, 2011). Visual literacy takes a constructivist approach, bridging the known to new knowledge and connecting visual and verbal language skills. Goldman et al. (2016) define four literacy dimensions: text for its ability to extend knowledge as a window to the world; text as a base for interrogation and argumentation; critically considering intent and message; and connecting content and form as an avenue for meaning. Images can spark memories or create new narratives (Pardieck, 2011). Visual literacy lets learners decode and interpret images more effectively and create meaningful art. The skills gained through visual literacy create learning transfer

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across school subjects and learning outside of school. Learning transfer benefits learners in the moment and builds over time and across multiple paths (Rupport, 2006).

In visual literacy, visual materials physically seen or explored through imagination are used for communication, analyzing, constructing meaning, expressing, and enjoying aesthetically (Beatty, 2013). Literacy is the language used for interpreting, criticizing, and questioning context and intent, so visual literacy's central component is visual language. Avgerinou and Pettersson (2011) ground visual literacy with five components: visual perception, thinking, communication, language, and learning, which revolve around visual language. They describe visual language as holistic but not universal. Students see images constantly but must be taught to apply visual language skills to understand and process what they see.

They must also use critical thinking to investigate images for deeper meaning, integrating visual materials with verbal information (Beatty, 2013). When learned, visual language is a complex code that can uncover deep and authentic comprehension. One theory describing visual imagery's connection to literacy skills is the Dual Coding Theory, which focuses on two areas of the brain: image and verbal memory (Beatty, 2013). In this model, visual literacy bridges image and verbal memory. Multimedia Learning Theory, stemming from Dual Coding Theory, is based on the foundation that auditory and visual information together make learning more efficient and suggests that combining visuals with text for learning materials maximizes a limited working memory and requires cognitive areas of the brain to process new information to learn (Ramlatchan, 2019).

Art is narrative, and through that capacity, young students learn to tell a story before they begin to read and write.

A ROBUST LITERACY-BASED ART CURRICULUM

Developing a robust visual arts curriculum will increase literacy skills that lead to success in life. K–12 districts from an educational system centered on writing focus too narrowly on traditional classroom learning and experiences, missing broader literacy skill practice and development of a technologically advanced generation bombarded daily with imagery. Students 8–12 years old spend almost five hours on screens each day, and for teens, screen time jumps to seven and a half hours per day, checking their phones as often as 200 times during the school day (American College of Pediatricians, 2020; Kline, 2023).

Art is narrative, and through that capacity, young students learn to tell a story before they begin to read and write. Using picture books encourages storytelling and critical thinking through illustration details because the image reveals more of the story than the limited words in books designed for early readers (Becker, 2020; O'Neil, 2011). Children are naturally visually literate (McKee, 2019). As children begin to read, visual literacy continues to support reading skills by providing clues as students encounter and learn new words or add meaning to stories and illustrations that are more complex (O'Neil, 2011). In addition to investigating objects and actions, learners can analyze moods and feelings. Teachers should create opportunities for critical thinking in multimodal ways by analyzing, interpreting, and creating images and discussing ethical issues of accuracy and purpose (Metros, 2008; O'Neil, 2011).

In addition to visual literacy, reading and writing literacy skills are incorporated into a robust art education curriculum. Art allows people to explore, investigate, and better understand the world. Reflection bridges writing and art purposefully and meaningfully (Ryan, 2014) by making thinking more visible and amplifying the visual message. Ryan (2014) connects art literacy skills with

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examples from poetry to game design. Reflection practices occur in three cyclical ways: aesthetics and perceiver reflections of aesthetics, expressive reflections to improve/change in the moment, and expression through symbolic capture within self-reflection (Ryan, 2014). Contemporary literacy through art intertwines skills, understandings, and knowledge that cross paths and connect in numerous ways through various texts and contents.

Students in the digital age have constant access to various images, and many visual literacy case studies integrate technology into visual imagery. Contemporary literacy practices in schools should be multi-modal, including many digital mediums (Huber et al., 2015). In 1977, Resnick and Resnick identified six types of literacy, including "sacred, useful, informational, pleasurable, persuasive, and personal" (p.89). To encourage technology integration, Stankiewicz (2004) used this list of literacies to illustrate the benefit of using technology for the two sides of visual art language: writing and reading, and expression and reception.

CROSS-DISCIPLINARY COLLABORATION

There is no single literacy story. Literacy is a nonbinary practice that exists in multiple subjects, where students continuously practice those skills (Arts Education Partnership, n.d.). Collaborative efforts can enhance literacy skills even further. Disciplinary literacy engages students in content areas by finding, sharing, and constructing meaning within the discipline's content while offering integrative opportunities to include multiple and sometimes overlapping literacies (Gabriel, 2023). Gabriel (2023) encourages educators to

> prepare students for full participation in tasks and activities that carry meaning and purpose.

Art can support students with language impairment, benefiting students with an Individualized Education Plan (IEP) and English language learners (ELL), especially through an arts-based literature approach to reading and language development.

> It's about learning the literacies that support particular content so students can use that content to do things in the world. Instead of isolating content from text or text from content, disciplinary literacy instruction integrates them as students read, write, talk, and do the authentic work of the discipline. (p. 33)

INCLUSION and EQUITY

Visual literacy promotes inclusion and equity. Art can support students with language impairment, benefiting students with an Individualized Education Plan (IEP) and English language learners (ELL), especially through an arts-based literature approach to reading and language development. Becker (2020) adds, "Visual-based experiences that capitalize on the strengths of children with language limitations provide access to the curriculum and promote equity for all learners" (p. 167). When schools offer multiple discipline avenues to learn, discuss, and comprehend, they address the diverse needs of students (Becker, 2020). Becker (2020) goes on to say, "Drawing to facilitate language is an underutilized learning strategy that deepens understanding and provides opportunities for feedback" (p. 172). Visual art paired with Universal Design for Learning (UDL) can provide speech-language pathologists, special and general educators, art specialists, and instructional options supporting language and literacy for students with language.

INSTRUCTIONAL STRATEGIES

Storytelling in art classrooms is a natural way to integrate reading comprehension. Reading comprehension literacy strategies within O'Neil's (2011) study include:

- *Test-to-Text Connections,* where students find similarities of image and concept in other picture books.

Questions and prompts that promote authentic investigation and problem-solving are vital in guiding students through the literacy process.

- *Interference*, where learners use clues within the compositions of images to defend inference statements.

- *Visualizing*, where learners practice imagining themselves in the story using exaggerated movements and actions.

- *Main idea*, where learners use books with additional visual clues to use text and images to find the main ideas and concepts.

- *Questioning*, where learners develop questions by looking at multiple versions of a traditional story.

Visual literacy teaching strategies from the National Art Education Association (NAEA) include:

- Close readings of works of art and other media as text empower learners to build strong content knowledge in a range of disciplines, as well as essential skills such as critical thinking, evidence-based reasoning, and meaning-making.

- Engaging and conveying ideas in a visual language through art media.

- Discussions about works of art and design develop speaking and listening skills that support collaborative meaning-making and the articulation of ideas.

- Communicating artistic intent through the visual, verbal, and written presentation of their work (National Art Education Association, n.d., para.3).

Questions and prompts that promote authentic investigation and problem-solving are vital in guiding students through the literacy process. In 2022, two hundred kindergarten to 2nd-grade students from multiple schools participated in a study investigating collaboration and literacy through visual and verbal communication skills (Vanderlip Taylor & Buchman, 2022). Students created meaning through collage while

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communicating strategies collaboratively with a partner to clarify or enhance their visual ideas. Conversation starter prompts, such as, "What if we ..., " "What do you think of...," and, "How might we make ...," were displayed and modeled to guide students through the communication process. Verbal communication with partners was mainly successful, but students sometimes struggled to communicate intended meanings clearly or interpret meanings from classmates (Vanderlip Taylor & Buchman, 2022). With practice, literacy can flourish, helping students gain essential life skills. Cope and Kalantzis (2009) found open-ended questions offer guidance in many contexts, such as:

- *Representational*: To what do the meanings refer?
- *Social*: How do the meanings connect the persons they involve?
- *Structural*: How are the meanings organized?
- *Intertextual*: How do the meanings fit into the larger world of meaning?
- *Ideological*: Whose interests are the meanings skewed to serve? (p. 176)

Laurie Stowell, a reading specialist and professor of literacy at CSUSM, developed the following guiding questions for DREAM (McKee, 2019):

- Are there details in the illustration that are not mentioned in the text? What are they? Are there details in the text left out of the illustration?
- Do the illustrations provide any conflicting information? What? Why?
- What is the perspective of the illustration? Do we see the scene from someone else's point of view in the text? Which character? You, as the reader?

> **Twenty-first-century and literacy language skills offer flexibility in the ever-changing environment. Students who practice visual literacy in the classroom develop 21st-century reasoning, critical thinking, and problem-solving skills.**

- Who is in the illustration? Everyone mentioned in the text? Who is in, and who is out? Who is looking at whom? Why?

- How are the relationships of the characters depicted? Who is standing close? Who is far away? What do the expressions on their faces convey?

- Where are the characters looking? At the action? At each other? At something else?

- What do the characters know that we (the reader) do not know?

- What do we learn about the setting from the illustration? Are we looking straight on? Airplane view? Why?

- What color palette is used? How does the choice of color contribute to the story? To the mood?

- Do the illustrations depict more than visual clues? Do they help us smell, touch, taste, or hear some part of the text? How? (para. 11)

CASE STUDIES

Achievement

The benefits can be profound when literacy is practiced across the school curriculum (Edutopia, 2019). With 82% economically disadvantaged students, Concourse Village Elementary School in The Bronx, NY, incorporated literacy in all subject areas, including visual arts, and it paid off immensely, with 88% of students scoring proficient or advanced in English language and mathematics; an impressive 40 points higher than city averages (Edutopia, 2019).

In the Yıldırım district of the Bursa province in Turkey, an experimental and control group of 180 seventh-grade students used Web 2.0 tools with a cell and cell division science curriculum. The study showed an increase in

academic achievement, visual literacy level, and spatial visualization skills (Demirezer & İlkörücü, 2023). The researchers note that the increased academic achievement was due to improved cognitive processes and credit the increase in visual literacy levels as a reason for their academic achievement growth.

Also, in Turkey, Hanci (2022) measured the visual literacy and academic achievement levels of 299 high school students within the six subdivisions of the visual literacy scale. Researchers found Perceiving Messages in Visuals and Total Visual Literacy, Defining Printed Visual Materials, and Distinguishing the Visual Messages Encountered in Daily Life to be high. Visual Interpretation, Creating Visuals Using Tools sub-dimensions, and Visual Literacy Total were higher in female participants (Hanci, 2022). The study found that students with very high achievement levels also exhibited significantly higher visual literacy skills, noting that visual literacy can impact academic achievement and "visual materials and activities prepared for students have a positive effect on students' learning, improving their learning and structuring them in their minds" (Hanci, 2022, p. 621).

Digital Images

Technology is a growing area in visual literacy studies as educators examine their current students' experiences. Visual literacy can connect students with everyday life, technology, and imagery, encouraging diverse and creative learning methods. Griffin et al. (2017) linked literacy development to visual art through a Cindy Sherman-inspired photography project. As documented in reflection writing, six students connected with topics and emotions through photographic images. The two participating teachers noted the importance of deconstructing imagery and using the visual arts language and design elements and principles. Griffin (2017) emphasized the power of visual images and the necessity of visual literacy in a school curriculum.

> **Among their discoveries, they found that visual literacy offers alternative paths to learning for struggling students, that it allows ELL students the power to express what they cannot through the English language, that photography is a globalizing and exciting media that lends itself to storytelling, and that visual images can break through grammatical barriers** *(Holloway, 2012).*

In an additional study, Wiseman et al. (2016) integrated literacy practices through digital photography to boost reading and literacy skills. The participants, 22 art students in a classroom that integrated visual literacy with reading, writing, and discussing, were tasked with being "photo detectives" and used critical thinking to analyze image scenes and discuss setting, tone, and mood through visual evidence. Students combined drawing and drama with their photography investigations, boosting comprehension and understanding. They also connected context to their personal lives through reflection and critical thinking and created their own visual representation through photography.

Community Collaboration and English Language Learners

In South Western Ontario, Canada, five participants, two teachers, a professional photographer, an organic farmer, and a social worker, gathered to use visual literacy in elementary and middle school classrooms. Among their discoveries, they found that visual literacy offers alternative paths to learning for struggling students, that it allows ELL students the power to express what they cannot through the English language, that photography is a globalizing and exciting media that lends itself to storytelling, and that visual images can break through grammatical barriers (Holloway, 2012). More importantly, they found that increasing literacy through visual art increases the ability of students to socially construct their identities. The most robust finding was that literacy in any form is ultimately about shaping ideas in meaningful ways (Holloway, 2012).

Multiliteracy approaches offer a more inclusive classroom experience. In a California study by Cappello and Barton (2022), a data set of 22 drawings was analyzed by 4th–6th-grade students who identified as English language learners within an arts-based curriculum. The ELL students could interpret visual images demonstrating

abilities that challenged the deficit labels assigned to them through their ELL evaluations (Cappello & Barton, 2022).

CONCLUSION

Students need literacy skills, including visual literacy, as they prepare to enter the workforce. Twenty-first-century and literacy language skills offer flexibility in the ever-changing environment. Students who practice visual literacy in the classroom develop 21st-century reasoning, critical thinking, and problem-solving skills. Reading and language arts curriculums that include visual literacy will further enhance these skills. One article suggests,

> We are in the midst of a profound shift in the balance of agency, in which as workers, citizens and persons, we are more and more required to be users, players, creators and discerning consumers rather than the spectators, delegates, audiences or quiescent consumers of an earlier modernity. (Cope & Kalantzis, 2009, p. 172)

One of the fundamental goals of visual literacy is to

> create the conditions for learning that support the growth of a person who is comfortable with themselves as well as being flexible enough to collaborate and negotiate with others who are different from themselves to forge a common interest. (Cope & Kalantzis, 2009, p. 174)

Literacy practices, extended through the curriculum via multiple paths, can strengthen student achievement and lifelong skills to create successful adults in the workplace and beyond.

Students who practice visual literacy in the classroom develop 21st-century reasoning, critical thinking, and problem-solving skills. Reading and language arts curriculums that include visual literacy will further enhance these skills.

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