



Visual Literacy as a 21st-Century Skill

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ABSTRACT

The development of Visual Literacy is essential in order to contribute to the changing society by recognizing that visual literacy has become more important because of the advances in technology and communication, both digitally and visually. Visual literacy is considered to be one of the major skills in the 21st century. The purpose of this paper is to propose that visual literacy is necessary for individuals going through the complex information environments and the democratic media cultures that individuals will experience. Through a review of related theoretical and empirical literature, key definitions of visual literacy are presented and how visual literacy relates to the frameworks of the 21st century. The research presented also provides evidence that teaching and learning will be positively affected by the development of visual literacy. Pedagogical, social, and policy implications regarding visual literacy will also be discussed in this paper. Finally, recommendations for curriculum integration, teacher preparation, and future research will be presented.

Introduction: -

There has been an unprecedented rise in the amount of visual media produced over the last twenty years in all areas of life. Communication in education, the workplace, government and day-to-day social interactions has become dominated by images, diagrams, infographics, animations, videos, dashboards and other immersive, visual technologies. Digital platforms such as social media, learning management systems, and

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data-driven decision-making tools feature heavily visual representations of meaning. Therefore, the ability to read and write only text is no longer enough to effectively participate in today's global society.

Students are now expected to interpret data visually and analyse the impact of visuals in order to produce multimodal texts as a result of this increase in usage of visual media. Visual literacy enables individuals to decode visual symbols, analyse visual messages, and communicate their thoughts visually. As a result, visual literacy is now considered to be one of the core components of the skill set required for success in the 21st century and is closely linked to creative thought, critical thought, communication skills and digital literacy. The purpose of this paper is to investigate visual literacy as a primary 21st-century skill; therefore, it will review relevant literature, explain the conceptual basis for visual literacy and outline the pedagogical and policy implications of the above.

Defining Visual Literacy: -

John Debes coined the term visual literacy in the late 1960's. He described visual literacy as a range of skills that help us to interpret the world visually and to derive meaning from what we see. In describing visual literacy, Debes stressed the importance of perception, the integration of our senses, and the ability to respond to what we see in a meaningful way. The initial definitions of visual literacy focused primarily on perception and how we discriminate between different types of visuals, but in recent years, visual literacy has expanded in definition.

The contemporary definition of visual literacy is that it is a multifaceted construct that encompasses the ability to interpret, analyze, evaluate, and create visual messages within specific cultural, social, and technological contexts. Avgerinou and Ericson contend that visual literacy includes perceptual skills (i.e., the ability to see visual elements and patterns), cognitive skills (i.e., the ability to interpret relationships among visuals, symbolism, and intent), and productive skills (i.e., the ability to create and communicate visually). Other scholars, including Hobbs, place visual literacy in the more comprehensive framework of media literacy and emphasize the importance of critical inquiry, ethical judgment, and civic engagement as part of visual literacy.

Therefore, today visual literacy is not simply "seeing" but rather engaging critically with visual texts, being aware of the rhetorical aspects of visuals, and using visuals to communicate and solve problems in purposeful ways.

Theoretical Framework: Why Visual Literacy Is 21st Century Skill: -



Visual literacy occupies a central place within contemporary educational frameworks for several theoretical and practical reasons.

1. Visual Competence as Digital Age Literacy: -

The majority of 21st century skill frameworks support incorporating traditional literacy with digital and media literacies. For instance, the 3 R's and 4 C's models and the Digital Age Literacy Framework specifically state that visual literacy and multimodal literacy are necessary competencies. In a digital environment, information is more likely to be presented visually (as opposed to being presented in words). Therefore, students must have the ability to interpret charts, maps, and other visual data. Additionally, visual literacy will be the basis for information literacy, which is a component of digital citizenship.

2. Visual as Epistemic Tools: -

Almost all of the frameworks that outline 21st century skill development are supportive of integrating the original three R's or traditional literacy—reading, writing, and arithmetic—with digital and media literacies. Examples include the models developed using the 3 R's and 4 C's, as well as those developed through the Digital Age Literacy Framework, which explicitly identify both visual literacy and multimodal literacy as essential skills. Digital environments typically provide information in visual representations through charts, pictures, and graphs or maps, as opposed to providing information through text-based explanation. As a result, students will need to have the ability to interpret visual data (e.g., charts, maps, etc.). Additionally, information literacy will be developed upon the foundation of visual literacy, which is related to digital citizenship.

3. Media, Civic, and Critical Competence: -

Today's world is full of persuasive images through advertising, politics, memes, and algorithm-based content delivery (e.g. Facebook, Instagram). Visual literacy is the ability to analyze visual messages critically, to understand how visual images can represent bias and manipulation of the intended message, as well as being a user of visual information responsibly in democratic conversation; therefore, from this vantage point, visual literacy is a civic skill as well as an academic skill.

4. Review of Research: -

Conceptual and Review Studies

Literature exists to explain the history and definition of visual literacy through several types of literature including review literature (Avgerinou). Many of these concepts identify how blurry definitions currently exist for visual literacy, and that definitions should be broad based across disciplines. Newer literature (reviews by Farrar, Arizpe, and Lees - 2024) has begun to examine how children and adolescents use visual



literacy as a way of communicating and learning through visual mediums, as well as the importance of visual stories and multimodal texts for developing literacy skills.

Literature identifies a resurgence of scholarly interest in visual literacy, especially concerning digital technologies, along with multimodal learning. However, each of these collections of literature provides limited clarity around the operational definitions of visual literacy, and the research methodology used in the studies conducted to support/inform the author's review.

Empirical Evidence: Learning Outcomes

A large amount of academic literature, both conceptual and review, has documented the development of visual literacy as a discipline, with Avgeriou (2001) providing an important review of the literature. Avgeriou notes that visual literacy has not only been defined in multiple ways but argues for a broad, interdisciplinary conception of visual literacy. Other reviews such as those by Farrar, Arizpe, & Lees (2024) explore the ways children and youth learn from visual images and increasingly emphasize that literacy education is being developed using visual narratives and multimodal texts.

There is widespread evidence in the aforementioned reviews that the academic community has renewed interest in visual literacy; this time, the renewed interest is in the context of digital technologies and multimodal learning. In addition, the reviews reveal a need for clearer definitions of visual literacy and more rigorous empirical research on the area of visual literacy.

Visual Literacy, Technology, and Equity: -

This has created new possibilities for visual creation and multimodal expression due to advances in technology. Increasingly available video production, infographic creation, and data visualization resources have emerged. However, these dynamic technological changes raise some issues regarding equity. The lack of equitable access to digital resources, teacher preparation, and rigid curricula create barriers to implementing visual literacy instruction effectively.

UNESCO and other international organizations encourage the incorporation of digital and visual literacies into teacher training programs and national curricula as part of the overall educational reform efforts. The issues of equity and inclusion continue to be significant obstacles to achieving these goals.

Gaps and Methodological Issues: -

Major gaps in visual literacy research include inconsistencies in defining visual literacy, a lack of standardized assessments, and a need for more longitudinal studies to measure long-term and transferable effects from visual literacy training. There is also a particular need for research to link instruction in visual literacy with civic engagement, employability, and lifelong learning. Systematic reviews conducted within the last year strongly recommend the need for validated rubrics and longitudinal research designs.



Pedagogical Implications: -

Drawing on theoretical insights and empirical evidence, several pedagogical strategies can support the integration of visual literacy into 21st-century education.

Embedding Visual Literacy Across the Curriculum

Visual literacy should be integrated throughout all subjects, not just those related to art and media. Authentic contexts for developing visual interpretation and production skills exist in science, social studies, math, and language arts.

Explicit Instruction in Visual Grammar

Teachers need to include parts of visuals such as design, shade, viewpoint, representation, and visual language clearly in their lesson plans. By providing students with ways to create visual messages, students will be able to critically analyse visual messages and create visual messages with intent. There must also be ways to assess the learning outcomes of students through the creation of visual and multimodal text. Examples of visual and multimodal text include infographics, informative diagrams and brief videos that foster higher-level cognitive skill development and include skills of idea synthesis, design thinking and audience consideration.

Teacher Capacity Building

Teachers require Access to digital tools, assessment "rubrics", and pedagogical strategy to promote visual literacy in the classroom through professional development. The sustainability of implementation requires institutional support.

Standardized Assessment and Frameworks

Creating valid "rubrics" for visual literacy assessment, as well as benchmark creation, would support the development of comparative research, curriculum alignment and institutional and national policy adoption.

Recommendations for Policy and Future Research

Policy Recommendations:

Visual literacy should be recognised as a primary element/foundation of digital age literacy in all educational policies. Teacher training, infrastructure for technology, and development of curricular has to take place to promote fair opportunity for access to/delivery of these types of lessons.

Research Recommendations:

Future research should include things like: how to define operational definitions; developing reliable assessments or measuring instruments; conducting long-term studies and/or experimental designs; and looking at questions related to equity among differing socio-economic and language groups.



Conclusion

Visual literacy has become a necessary skill of the 21st century. It is a foundation of the way we communicate and learn; participate in our governments and communities; and interact as professionals in visually based cultures. Although research shows that teaching visual literacy in schools is effective for improving student achievement, there is still need for conceptual clarity, methodological rigor, and supporting policies within the field. By incorporating visual literacy into all areas of the curriculum, providing support for teacher preparation programs, and creating a framework for ongoing and extensive research on visual literacy, schools will develop students' ability to deal with the increasing complexity in today's visually-rich environments and adapt to the rapid changes and global interdependence of our world.

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