



Integrating Visual Thinking Strategies with Indian Traditional Art in Teacher Education: A Pathway to Critical and Creative Thinking

Prof. Neha R. Chhangani

Research Scholar

S.S.S. M.M. B.Ed. College, Nandgaonpeth, Amravati

Dr. Gajanan Sharma

Principal

Matoshri Sayabai Champalaji Chopada, B.Ed. College, Khamgaon

Abstract

Teacher education in the twenty-first century requires innovative pedagogical approaches that prepare future teachers to become reflective practitioners, critical thinkers, and culturally responsive educators. The National Education Policy (NEP) 2020 emphasizes experiential learning, multidisciplinary education, competency-based teaching, and the integration of Indian Knowledge Systems (IKS) into teacher preparation programmes. In this context, Indian Traditional Art offers a rich visual and cultural resource that can transform classroom learning when combined with Visual Thinking Strategies (VTS). VTS is an inquiry-based teaching approach that encourages learners to observe carefully, interpret visual information, justify their ideas with evidence, and engage in collaborative discussions. This conceptual paper explores how the integration of VTS with Indian Traditional Art can enhance critical thinking, creative thinking, visual literacy, reflective practice, and cultural awareness among pre-service teachers. The paper is based on an extensive review of literature related to Visual Thinking Strategies, art-integrated learning, teacher education, constructivism, and Indian Knowledge Systems. It proposes a pedagogical framework for integrating VTS with traditional Indian art forms such as Warli, Madhubani, Gond, Kalamkari, and Pattachitra. The study argues that this integration not only enriches classroom pedagogy but also prepares future teachers to design culturally relevant and inquiry-based learning experiences. The paper concludes that combining VTS with Indian Traditional Art aligns with the vision of NEP 2020 and contributes to the holistic development of teacher competencies required in contemporary education.

Keywords: Visual Thinking Strategies, Indian Traditional Art, Teacher Education, Critical Thinking, Creative Thinking, Art-Integrated Learning, Indian Knowledge System.

Introduction

Education in the twenty-first century is no longer limited to the transmission of information; it aims to develop learners who can think critically, solve problems creatively, communicate effectively, and appreciate cultural diversity. Consequently, teacher education institutions are expected to prepare future teachers with pedagogical approaches that encourage inquiry, collaboration, reflection, and innovation. Traditional lecture-based teaching methods often provide limited opportunities for learners to engage actively in knowledge construction. Therefore, there is a growing need to integrate learner-centred strategies that promote higher-order thinking skills and meaningful classroom interaction.

One such approach is **Visual Thinking Strategies (VTS)**, an inquiry-based discussion method developed by Abigail Housen and Philip Yenawine. VTS encourages learners to examine works of art carefully, construct interpretations based on visual evidence, and participate in collaborative dialogue. Instead of searching for a single correct answer, learners explore multiple perspectives and support their ideas with observations from the artwork. This process strengthens critical thinking, observation, communication, reasoning, and reflective learning. Research has consistently shown that VTS improves students' analytical abilities and fosters an inclusive learning environment where every learner's perspective is valued.

India possesses one of the richest artistic traditions in the world, with each region contributing unique visual languages that reflect its history, beliefs, environment, and social practices. Traditional art forms such as Warli, Madhubani, Gond, Kalamkari, Pattachitra, Phad, and Kalamkari are not merely decorative expressions but also visual narratives that communicate indigenous knowledge, ecological wisdom, ethical values, and cultural identity. These artworks provide authentic educational resources that can stimulate curiosity, discussion, and interpretation in teacher education classrooms.

The integration of Indian Traditional Art with VTS creates a meaningful pedagogical framework in which pre-service teachers engage with culturally significant visual materials while developing essential professional competencies. Through structured observation and evidence-based dialogue, learners not only interpret artistic elements but also connect them with educational themes such as environmental sustainability, social inclusion, cultural heritage, and community life. Such experiences encourage future teachers to adopt culturally responsive teaching practices and appreciate the diversity of learners' interpretations.

The **National Education Policy (NEP) 2020** strongly advocates the integration of Indian Knowledge Systems, art-integrated learning, experiential education, and competency-based

teacher preparation. Similarly, the National Curriculum Framework for Teacher Education emphasizes reflective practice, creativity, and learner engagement. Integrating VTS with Indian Traditional Art directly supports these national priorities by providing a practical strategy for implementing inquiry-based and culturally relevant pedagogy in teacher education programmes.

Furthermore, visual literacy has become an essential competence in the digital age, where learners constantly interact with visual media. Future teachers must therefore be equipped with the ability to analyse, interpret, and use visual resources effectively in their teaching. VTS offers a structured approach to developing these competencies while simultaneously promoting collaboration, empathy, and evidence-based reasoning.

Although numerous studies have investigated the effectiveness of Visual Thinking Strategies and art-integrated learning separately, relatively few have examined the combined use of Indian Traditional Art and VTS in teacher education. This conceptual paper addresses this gap by proposing an integrated pedagogical framework that highlights the educational potential of traditional Indian visual arts in developing critical and creative thinking among pre-service teachers.

The paper argues that integrating Visual Thinking Strategies with Indian Traditional Art provides a culturally meaningful, learner-centred, and reflective approach to teacher education. Such integration can enrich classroom experiences, strengthen professional competencies, and prepare future teachers capable of designing innovative learning environments aligned with the aspirations of twenty-first-century education.

Objective of the study

The present study aims to:

To examine the role of Visual Thinking Strategies in teacher education.

To explore the educational significance of Indian Traditional Art in developing higher-order thinking skills.

To propose a conceptual framework for integrating Visual Thinking Strategies with Indian Traditional Art.

To analyse the contribution of this integrated approach towards developing critical thinking and creative thinking among pre-service teachers.

To identify the educational implications of integrating Visual Thinking Strategies with Indian Traditional Art in teacher education.

Visual Thinking Strategies in Education

Visual Thinking Strategies (VTS) is an inquiry-based teaching method developed by Abigail Housen and Philip Yenawine during the late twentieth century. It was originally designed to improve viewers' understanding of visual art but has since been adopted in schools, universities, museums, teacher education programmes, and medical education.

The VTS approach revolves around three open-ended questions:

What is going on in this picture?

What do you see that makes you say that?

What more can we find?

These questions encourage learners to observe carefully, justify their responses with evidence, listen to diverse perspectives, and revise their interpretations based on discussion. Rather than memorizing facts, learners actively construct meaning through collaborative dialogue.

Yenawine (2013) argues that VTS enhances observation, reasoning, communication, and critical thinking by encouraging students to support their interpretations with visual evidence. Housen's research further indicates that repeated exposure to VTS discussions improves aesthetic understanding and cognitive development. Students become more confident in expressing ideas, questioning assumptions, and appreciating multiple viewpoints.

Several studies also report that VTS increases learner engagement because it values every participant's perspective. This inclusive nature makes VTS particularly useful in teacher education, where future teachers must learn to facilitate respectful discussions and encourage active participation.

Indian Traditional Art as an Educational Resource

India possesses a rich artistic heritage representing diverse regions, cultures, and communities. Traditional art forms such as Warli, Madhubani, Gond, Kalamkari, Pattachitra, Phad, and Tanjore paintings reflect indigenous knowledge, local history, environmental awareness, folklore, spirituality, and social values.

These artworks communicate ideas through symbols, colours, patterns, and narratives rather than through written language alone. As visual texts, they provide excellent opportunities for interpretation, discussion, and inquiry-based learning.

For example, Warli paintings portray harmonious relationships between humans and nature, while Madhubani paintings depict mythology, festivals, and community life. Gond art illustrates biodiversity and tribal traditions through intricate patterns and symbolic imagery.

Such artworks enable learners to connect classroom concepts with cultural heritage and real-life experiences.

Traditional Indian art therefore serves not only as an artistic resource but also as a medium for environmental education, value education, social understanding, and interdisciplinary learning.

Art-Integrated Learning

Art-Integrated Learning has gained considerable importance in contemporary education. It combines artistic experiences with academic learning to enhance conceptual understanding, creativity, and learner engagement.

Research suggests that art-based learning improves:

motivation,
imagination,
problem-solving,
communication,
collaboration,
conceptual understanding.

The National Education Policy (2020) strongly recommends art integration across school and teacher education curricula. It recognizes art as an effective means of promoting experiential learning and holistic development.

When Indian Traditional Art becomes part of classroom instruction, learning becomes culturally meaningful. Students are encouraged to explore concepts through observation, discussion, storytelling, drawing, and creative expression instead of relying exclusively on textbooks.

Visual Literacy in Teacher Education

Visual literacy refers to the ability to interpret, analyse, evaluate, and create visual information. In today's digital world, teachers continuously use images, videos, diagrams, infographics, and digital media to facilitate learning. Consequently, visual literacy has become an essential professional competency.

Teacher education programmes should therefore prepare future teachers to interpret visual materials critically and integrate them effectively into classroom practice.

Visual Thinking Strategies contribute significantly to visual literacy by encouraging learners to examine details carefully, distinguish evidence from assumptions, and communicate interpretations logically.

The integration of Indian Traditional Art further enriches visual literacy because learners analyse culturally meaningful images that contain historical, ecological, social, and symbolic significance.

Critical Thinking and Creative Thinking

Critical thinking involves analysing information objectively, evaluating evidence, identifying relationships, and making reasoned judgments. Creative thinking involves generating original ideas, exploring multiple possibilities, and producing innovative solutions.

Both competencies are recognised as essential twenty-first-century skills.

Visual Thinking Strategies naturally promote these abilities because learners:

observe carefully,

ask questions,

justify interpretations,

compare viewpoints,

reconsider conclusions,

construct meaning collaboratively.

Similarly, Indian Traditional Art stimulates imagination by presenting symbolic narratives rather than fixed explanations. Different learners often produce different interpretations, making classroom discussions richer and more meaningful.

Theoretical Framework

The proposed integration of Visual Thinking Strategies with Indian Traditional Art is supported by several educational theories.

Constructivist Learning Theory

Constructivism proposes that learners actively construct knowledge through interaction with experiences rather than passively receiving information.

Visual Thinking Strategies follows this principle because learners create their own interpretations of artworks through observation and discussion.

Teacher becomes:

facilitator,

discussion leader,

questioner,

rather than information provider.

This learner-centred approach aligns closely with modern teacher education.

Vygotsky's Social Constructivism

According to Vygotsky, learning occurs through social interaction. VTS discussions encourage learners to:

exchange ideas,

negotiate meaning,

build understanding collaboratively.

Listening to classmates' interpretations often leads students to reconsider their own viewpoints, thereby promoting deeper learning.

Conceptual Framework

The conceptual framework of the present study is based on the integration of **Visual Thinking Strategies (VTS)** and **Indian Traditional Art** to promote critical and creative thinking among pre-service teachers in teacher education. The framework assumes that Indian Traditional Art serves as a rich visual and cultural resource, while Visual Thinking Strategies function as an inquiry-based pedagogical approach that transforms these artworks into meaningful learning experiences. Traditional Indian art forms such as Warli, Madhubani, Gond, Kalamkari, and Pattachitra provide authentic visual narratives that encourage learners to observe carefully, interpret symbols and cultural meanings, and relate visual experiences to educational concepts.

Within this framework, learners engage with artworks through the three core VTS questions: *"What is going on in this picture?"*, *"What do you see that makes you say that?"*, and *"What more can we find?"*. These open-ended questions encourage students to observe visual details, justify their interpretations with evidence, consider multiple perspectives, and participate in collaborative discussions. Through this process, learners actively construct knowledge rather than passively receive information, which is consistent with the principles of constructivist learning.

The interaction between Indian Traditional Art and Visual Thinking Strategies promotes several essential learning processes, including careful observation, evidence-based reasoning, reflective thinking, collaborative dialogue, and creative interpretation. These learning processes contribute to the development of higher-order thinking skills that are essential for future teachers. As pre-service teachers engage in visual inquiry and reflective discussion, they strengthen their critical thinking, creative thinking, visual literacy, communication skills, cultural awareness, and professional teaching competencies.

The framework further proposes that the integration of VTS with Indian Traditional Art supports the objectives of the **National Education Policy (NEP) 2020**, particularly its

emphasis on experiential learning, art-integrated education, competency-based teacher preparation, and the inclusion of **Indian Knowledge Systems (IKS)**. By incorporating culturally relevant visual resources into inquiry-based classroom discussions, teacher educators can create meaningful learning environments that foster reflective practice, inclusive participation, and innovative pedagogy.

Methodology

The present study adopts a **conceptual research design** to explore the integration of **Visual Thinking Strategies (VTS)** with **Indian Traditional Art** in teacher education and its potential to enhance critical and creative thinking among pre-service teachers. Since the study is conceptual in nature, it does not involve the collection of primary data from participants. Instead, it is based on an extensive review, analysis, and synthesis of existing literature from diverse academic sources. Relevant information was collected from peer-reviewed journal articles, scholarly books, conference proceedings, research reports, government policy documents, and official publications related to Visual Thinking Strategies, teacher education, Indian Traditional Art, art-integrated learning, visual literacy, constructivist learning theory, and the National Education Policy (NEP) 2020. In addition, literature on the **Indian Knowledge System (IKS)** and contemporary pedagogical practices was examined to provide a comprehensive understanding of the topic.

The collected literature was analysed using **thematic analysis**, in which recurring themes, concepts, and educational practices were identified, compared, and synthesised. Themes such as inquiry-based learning, critical thinking, creative thinking, visual literacy, cultural competence, reflective practice, and art-integrated pedagogy were systematically reviewed to establish relationships between Visual Thinking Strategies and Indian Traditional Art within the context of teacher education. Based on this analysis, a conceptual framework was developed to explain how the integration of traditional Indian artworks with VTS can contribute to the professional development of pre-service teachers. The findings and conclusions presented in this paper are therefore derived from a critical interpretation of existing scholarly literature rather than empirical investigation. This methodology is appropriate for conceptual research because it enables the development of new theoretical insights and pedagogical perspectives that can guide future empirical studies and educational practices in teacher education.

Discussion

Unlike traditional lecture-based instruction, VTS encourages learners to become active participants in classroom discussions. By analysing artworks, students observe details

carefully, provide evidence for their interpretations, compare perspectives, and construct meaning collaboratively. These practices align with constructivist principles and foster higher-order cognitive skills.

Indian Traditional Art enriches this process by providing culturally meaningful visual resources. Art forms such as Warli, Madhubani, Gond, Kalamkari, and Pattachitra communicate stories of community life, environmental sustainability, mythology, and indigenous knowledge. These themes allow pre-service teachers to connect visual interpretation with educational concepts and real-life contexts. The integration also contributes to **creative thinking**. Since traditional artworks often permit multiple interpretations, learners are encouraged to imagine possibilities, generate original ideas, and explore alternative viewpoints. This open-ended inquiry nurtures creativity while reducing dependence on rote learning.

Furthermore, VTS discussions improve communication and collaboration. Learners articulate their ideas, justify them using visual evidence, and respectfully consider the viewpoints of others. Such dialogue prepares future teachers to facilitate learner-centred classrooms where questioning, discussion, and reflection become central to teaching and learning.

The proposed framework also supports the objectives of the National Education Policy (2020), particularly its emphasis on experiential learning, art-integrated education, competency-based teaching, and the incorporation of Indian Knowledge Systems. Consequently, integrating VTS with Indian Traditional Art offers an innovative pedagogical strategy capable of enhancing both professional competencies and cultural awareness among pre-service teachers. As pre-service teachers engage in visual inquiry and reflective discussion, they strengthen their critical thinking, creative thinking, visual literacy, communication skills, cultural awareness, and professional teaching competencies.

Educational Implications

The findings of this conceptual study have important implications for teacher education.

For Teacher Educator

Teacher educators can incorporate Indian Traditional Art into pedagogy courses to promote inquiry-based discussions and reflective learning. Instead of providing direct explanations, they can use VTS questions to encourage observation, interpretation, and evidence-based reasoning.

For Pre-service Teachers

Future teachers can develop essential professional competencies, including critical thinking, creativity, communication skills, visual literacy, and cultural sensitivity. These competencies are increasingly important for designing learner-centred classrooms.

For Curriculum Developers

Teacher education curricula may include modules on

Visual Thinking Strategies

Indian Traditional Art

Art-integrated pedagogy

Visual literacy

Museum-based learning

Indian Knowledge Systems

Such integration would strengthen interdisciplinary learning and align teacher preparation with contemporary educational reforms.

Conclusion

Teacher education requires innovative pedagogical approaches that prepare future educators for culturally diverse and knowledge-rich classrooms. Visual Thinking Strategies provide an effective learner-centred method for developing observation, interpretation, communication, and evidence-based reasoning. Indian Traditional Art, on the other hand, offers authentic visual narratives that preserve India's cultural heritage and indigenous knowledge. The present conceptual paper argues that integrating VTS with Indian Traditional Art creates meaningful learning experiences that enhance critical thinking, creative thinking, visual literacy, reflective practice, and cultural competence among pre-service teachers. The proposed framework demonstrates how traditional artworks can become powerful teaching resources through structured inquiry and collaborative discussion.

This integrated approach is consistent with the vision of the National Education Policy (2020), which advocates experiential learning, multidisciplinary education, art integration, and the inclusion of Indian Knowledge Systems in teacher education. By adopting this framework, teacher education institutions can prepare reflective, innovative, and culturally responsive teachers capable of meeting the educational challenges of the twenty-first century. Future empirical studies may validate the proposed framework through experimental research involving pre-service teachers from different teacher education institutions. Such studies can provide stronger evidence regarding the effectiveness of VTS integrated with Indian

Traditional Art in improving higher-order thinking skills and professional teaching competencies.

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