

# DIGITAL ART AS A TRANSFORMATIVE APPROACH IN ITEP: BENEFITS, CHALLENGES AND SOLUTIONS

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**Ms. Sanchika Gupta**  
**Dr. Vandana Kaushik**

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## *Abstract*

*In the era of rapid technological advancement, the integration of digital art in education has emerged as a transformative approach to enrich the learners of 21<sup>st</sup> century classrooms. As, Integrated Teacher Education Programs (ITEP) aims to prepare future educators with innovative teaching skills, interdisciplinary knowledge, creative instructional strategies and pedagogical competence that are necessary for modern education. This approach emphasises on cognitive, affective and psychomotor domain. Using a review of relevant literature, this paper aims to examine key aspects of digital art integrated teaching approach. It focuses on four main points: concept, benefits, challenges, and solutions for the integration of digital art in ITEP. The study concludes with some suggestions in order to promote this method.*

**Keywords:** Digital Art Integration, Integrated Teacher Education Programs, Multidisciplinary Education, Teacher Training, Pedagogy

## **Introduction**

In the present time, education system emphasizes the need for innovative and interdisciplinary approaches in teaching learning process.

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**Ms. Sanchika Gupta**

NCERT Doctoral Research Fellow, Department of Education, Baikunthi Devi Kanya Mahavidyalaya, Baluganj, Agra., Dr. B. R. Ambedkar University, Agra.

**Dr. Vandana Kaushik**

Assistant Professor, Department of Education, Baikunthi Devi Kanya Mahavidyalaya, Baluganj, Agra., Dr. B. R. Ambedkar University, Agra.

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In this context, ITEP (Integrated Teacher Education Programs) are designed to prepare pre-service teachers with a holistic understanding of teaching learning system that combines content knowledge, pedagogical skills, and practical classroom experience. A core aim of ITEP is to develop educators who are capable in constructing, designing and implementing creative, student-centered and technologically informed teaching learning experiences for the holistic development of learners. In this context, digital art integration emerges as a powerful approach to enhance the quality of teacher training.

Digital art is an artwork which is created by using digital technology. It encompasses various forms like digital images, animation, 3D modeling, and graphic design etc. It involves hardware and software such as drawing, tablets and computers to create images that can be presented in different ways, including printable or online formats.

By the Integration of digital art into ITEP, we can improve pre-service teachers' ability to design engaging lessons, enhance multidisciplinary connections, and encourage different reflective teaching practices. The objectives of this study are to explore the benefits, challenges and solutions for the effective implementation of digital art in teacher education program.

### **Conceptual Framework**

Digital art includes a wide range of creative tools and technologies, including 3D models, interactive multimedia, digital images, virtual reality, and AI-generated visuals. These tools provide various opportunities to educators as well as learners by engaging them in dynamic, interactive, and visually compelling experiences.

### **Alignment of Digital Art Integration approach with ITEP Objectives**

- Equipping pre-service educators with 21<sup>st</sup> century skills.
- Supporting multidisciplinary lesson planning.
- Enhancing technological competence among teacher trainees.
- Encouraging creative approaches in pedagogy.
- Develop collaborative and project-based learning experiences.

### **Literature Review**

Several research studies focus on the transformative potential

of digital art in education as it promotes the creative thinking skills, technological skills, and lesson planning capabilities of teachers Leonido et al. (2023) focused that interdisciplinary approaches combining art and technology enhance artistic literacy and critical thinking among students.

Kozhagulov (2022), conducted a research by analysing the efficiency of digital art in education. His aimed to determine the impact of digital art on the performance of student learning and the effectiveness of digital art in education. This analysis concluded that digital art played an effective role and developed insights knowledge about the learning concepts in education. Another study was conducted by Marner and he argued that digital media in the arts not only save time but also enhances aesthetic aspects in learners and replace traditional education methods.

Li, (2021); Shao (2018), conducted a research and discussed the role of Internet in promoting public art education in his research papers and explained the way of teaching reforms the public art classrooms in terms of its school facilities, teachers, management, institutions, and others.

K. M. Cho's (2013) mentioned in his article named as digital arts as a product of technology-arts convergence, as it was the fusion of high technology and traditional art forms. The paper discussed the characteristics of media arts and their sociocultural effects, focusing on interactive media and the expanding potential for communication and creativity.

Similarly, Logan, (2010) explored that "New" digital media has made active and two-way information interaction behavior possible, creating an information ecosystem environment where co-creation and mutual sharing of thoughts are realized. ITEP also emphasizes an interdisciplinary approach where trainees integrate subjects such as maths, science, technology, arts, and humanities into lesson design.

#### **Overview of Literature Review:**

##### **A) Benefits of Digital Art Integration**

- 1. Fostering Pedagogical skills and Readiness towards Digital Literacy:** Teacher trainees gain exposure towards the digital

tools that can be applied across all subjects at all educational levels. By integrating digital art activities into lesson plans, they develop self confidence in using art with ICT, This will also align with NEP 2020's who emphasis on art and technology-enabled learning environments.

2. **Enriching Creativity with Innovative strategies:** Digital art integration enriches creativity thinking skills among teacher trainees (Robin,2008). By using digital tools, trainees can develop interactive and innovative lesson plans that draw students' attention and facilitate deeper understanding.
3. **Promoting Multidisciplinary Learning:** ITEP focuses interdisciplinary subject collaboration which encourages the trainees to integrate maths, art, technology, science, and humanities in lesson design. Digital art serves as a bridge between disciplines. This multidisciplinary approach improves teaching strategies and prepares trainees to address the diverse needs of students holistically.
4. **Accessibility and Inclusivity:** Accessibility of digital images, textbooks, audiobooks promote active learning participation of diverse learning needs. This approach ensures that students are actively taking part in digital art integrated activities which promote an equitable and enriching learning experience.
5. **Real-World Application:** Digital art integrated activities offer students' hands-on learning, integrating real-world applications into the classroom. It provides immersive and dynamic learning experiences for a more deep, comprehensive understanding of the subject matter.

#### **B) Challenges Related to Digital Art Integration in ITEP**

Despite its transformative potential, digital art integration in ITEP encounters various pedagogical, infrastructural, and systemic challenges. Some of them are discussed below

1. **Limited Access to Technology:** Most of the teacher education institutions lack adequate facilities in digital labs like high-speed internet, and updated hardware or software required for the use of digital tools. This technological gap hinders hands-on learning and experimentation.

2. **Lack of faculty Training:** Teacher educators often have limited exposure towards the digital tools. Without systematic training programs, they may struggle to apply digital art integrated pedagogies effectively in the modern classrooms.
3. **Resistance to Change:** Lack of awareness about new innovative approaches draws attention of teachers towards traditional approach and static lesson designs. Resistance to adopting technology can limit innovation among educators.
4. **Rigidity in Curriculum:** ITEP curriculum in many institutions remains content and examination-oriented, leaving limited space for innovative experimentation. The lack of explicit modules on digital art, creativity, and aesthetic pedagogy restricts integration.
5. **Ethical and Creative Ownership Concerns:** The increasing use of digital sharing raises issues of authenticity, copyright, and ethical use. Pre-service teachers need guidance on digital ethics and intellectual property rights in creative contexts.

**C) Solutions and Strategies for Effective Integration**

1. **Reform the Curriculum structure:** The curriculum should be reformed by introducing Digital Art and Creative Pedagogy courses in ITEP. This helps the teacher to embed digital art components across subject-specific pedagogy (e.g., using animation for biology, digital posters for language learning).
2. **Organise Faculty Development and Capacity Building program:** Workshops and MOOCs programs should be organised for teacher educators related to using digital art tools. Mentorship programs should be implemented for peer learning and best practices.
3. **Provide infrastructure:** Open-source platforms should be used to reduce cost barriers and promote accessibility. Ensure institutional Wi-Fi and digital resources are in continuous practice.
4. **Pedagogical Innovation:** Use flipped classroom and project-based learning (PBL) strategies where students will learn with digital art before and during class discussions. Gamification and augmented reality (AR) tools can be used by teacher for interactive learning experiences.

- 5. Promoting Ethical Awareness:** Government Institution should provide low-cost digital kits to ensure equal participation. They can also organize seminars and workshops on digital ethics, responsible use of AI for awareness.

### **Discussion**

Digital art integration in ITEP enhances teacher trainees' ability to create engaging, multidisciplinary lessons. Digital art foster creativity, reflective practice, and collaborative learning. The effective implementation requires:

- Organize professional development programs for ITEP instructors.
- Provide free or low cost access to digital tools for all trainees.
- Align curriculum with integrated learning outcomes.
- Emphasis on collaborative and digital art integrated activities.

### **Future Recommendations for Digital Art Integration in ITEP**

- 1. Curriculum Design and Policy Integration:** Integrate digital art tools and activities in pedagogy, assessment, and interdisciplinary courses. Ensure digital art pedagogy supports the NEP's vision for experiential, technology-enabled and art-integrated education. Develop national-level course on "Digital Creativity and Aesthetic Pedagogy" as a compulsory component in ITEP.
- 2. Faculty Development and Capacity Building:** Introduce professional development (CPD) programs to update the knowledge of faculty members on emerging digital art trends, AI-based creativity, and blended art pedagogy.
- 3. Resource Allocation:** Establish digital art labs in ITEP institutions equipped with creative software, and virtual galleries and laptop.
- 4. Assessment Criteria:** Adopt creative digital assessment tools like digital exhibitions, e-portfolios, and peer-reviewed design challenges.
- 5. Future Research:** Explore empirical studies on digital art integrated learning outcomes and teacher's efficacy.

### **Conclusion**

The integration of digital art within the Integrated Teacher

Education Programme (ITEP) is not just a technological advancement but a transformative step in modern teacher preparation. Digital art is considered as a blend of creativity and technology, provides an innovative approach to pedagogy and professional development. However, the integration process faces several challenges such as lack of digital literacy, infrastructural gaps, and resistance to pedagogical change. This article explores the benefits, challenges, and practical solutions of embedding digital art in ITEP, drawing on the principles of ITEP. The study concludes that digital art integration can act as a bridge between traditional and modern learning paradigms, creating classrooms where creative and aesthetic imagination meets technological empowerment.

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