

The Emerging Role of Recreational Pedagogy in Fostering 21st-Century Skills in Inclusive Education

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Abstract: Recreational pedagogy integrates leisure, play, sports, arts, and creative expression into learning to promote enjoyment, engagement, and holistic growth. It provides an effective pathway for developing 21st-century skills such as creativity, collaboration, critical thinking, communication, digital literacy, and social-emotional learning. The National Education Policy (NEP) 2020 underscores these competencies while advocating for inclusive, equitable, and experiential education that serves learners from diverse backgrounds and abilities (Gadavala & Buddhadev, 2025; Rangarajan et al., 2025). This paper presented a narrative review with systematic elements examining the emerging role of recreational pedagogy in fostering 21st-century skills within inclusive education. Despite strong policy advocacy, the research problem addressed is the limited integration of recreational pedagogical approaches in inclusive educational contexts. A comprehensive literature search was conducted across ERIC, Scopus, Google Scholar, and Taylor & Francis databases to identify relevant studies and policy documents published in English between 2000 and 2025. Key search terms included combinations of recreational pedagogy, play-based learning, arts and sports in education, 21st-century skills, inclusive education, and NEP 2020. Peer-reviewed articles, books, policy documents, and reports discussing recreational pedagogy and their relevance to 21st-century skill development were included. Studies unrelated to education, non-English publications, and purely medical contexts were excluded. Data were thematically synthesized based on theoretical foundations, applications, policy alignment, benefits, challenges, and gaps. The review revealed that recreational pedagogy enhances inclusivity, learner engagement, and holistic skill development, aligning closely with NEP 2020's vision for 21st-century skill and inclusive education.

Keywords: Recreational activities, Recreational Pedagogy, 21st Century Skills, Inclusive Education.

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I. INTRODUCTION

Over the past two decades, education systems have witnessed a paradigm shift from traditional rote learning methods to a skill-oriented and holistic approach of education globally (Gadavala & Buddhadev, 2025). Once dominated in classrooms, rote memorisation is now viewed as insufficient for preparing students for the varied demands of the 21st-century (Pem & Chophel, 2024). The 21st-century skills are important for holistic development of

children which generally include critical thinking, creativity, problem-solving, collaboration, communication, and social-emotional competencies (Joynes & Rossignoli, 2019). For holistic development, education must go beyond academic achievement where students are not only be knowledgeable but also adaptable, empathetic, innovative, and prepared to navigate dynamic social and economic landscapes. In this context, recreational pedagogy through play, sports, arts, music and experiential activities has emerged as an innovative

approach that promotes overall development (Cuhadar and Diken, 2011. Vyas, 2019).

According to National Education Policy (NEP) 2020, developing 21st-century skills is a key component of education that prepares students for the future. Recognizing the demands of the global economy and society, NEP 2020 advocates for a shift in pedagogy to encourage social-emotional learning (SEL) as well as critical thinking, creativity, teamwork, communication, problem-solving, and digital literacy (Soy, 2025). These competencies are positioned not as supplementary outcomes but as essential abilities that enable learners to thrive in an interconnected, technology-driven, and rapidly evolving world. NEP 2020 also strongly situates these skills within the framework of inclusive education. The policy emphasizes that equitable learning opportunities must be available to all learners, including those from socially and economically disadvantaged groups (SEMGs), linguistic and cultural minorities, and children with disabilities (Rangarajan et al., 2025). By embedding play-based learning, experiential activities, sports, arts, and vocational exposure into inclusive education, NEP 2020 ensures that diverse learners can acquire 21st-century skills in ways that are accessible, engaging, and participatory. Through inclusive play, adaptive sports, arts integration, and accessible digital platforms, recreational pedagogy provides multiple pathways for developing the 21st century skills across varied learner groups.

Recreational activities contribute to overall development of children with disabilities including psychological, cognitive, physical, social, and linguistics development (Cuhadar and Diken, 2011). Further, it also helps in developing skills and competencies, forming friendships and relationships, achieving mental and physical health and emotional well-being, developing self-identity, and acquiring a sense of meaning and purpose in life (Murphy et al. 2008; King et al. 2009). It also enhances communication and social skills (Kreiner and Flexer, 2009). Recreational pedagogy bridges the gaps between the goals of engagement, inclusion, and the development of skills by including structured play, sports, arts, music, and hands-on activities in the learning process.

II. RATIONAL OF THE STUDY

The 21st-century demands a shift in education from rote learning and content memorization towards skill-based, holistic, and inclusive education. The National Education Policy (NEP) 2020 of India underscores this transition, emphasizing creativity, critical thinking, collaboration, communication, and social-emotional learning as essential competencies for learners to thrive in a rapidly changing world (Joynes & Rossignoli, 2019). Simultaneously, it highlights the requirement of inclusive education that accommodates diversity in abilities, backgrounds, and learning needs (Rangarajan et al., 2025).

Within this evolving context, recreational pedagogy is an approach that integrates play, sports, arts, and other leisure-based activities into educational practice. It is emerging as a dynamic medium for promoting engagement, inclusion, and 21st-century competencies. Recreational experiences naturally foster creativity, problem-solving, teamwork, and emotional well-being and offers learners accessible and enjoyable ways to acquire essential life skills. Despite its potential, systematic integration of recreational approaches within inclusive education frameworks remains limited and empirical as well as theoretical discussions on this relationship are fragmented.

However, despite its recognized pedagogical potential, systematic inquiry into recreational pedagogy remains limited particularly within the context of inclusive education. Existing research predominantly centers on play-based and arts-based learning in early childhood or mainstream educational settings. But there is lack focus on how such pedagogical approaches facilitate inclusivity, equity, and 21st-century skill development. Moreover, there a notable lack of Indian studies that examine the conceptualization and implementation of recreational pedagogy in alignment with the National Education Policy (NEP) 2020. This gap is particularly striking given the policy's strong emphasis on holistic, experiential, and inclusive education reforms.

Therefore, this study was motivated by the need to synthesize theoretical foundations, practical insights, and policy implications related to recreational pedagogy and its role in fostering 21st-century skills in inclusive educational contexts. The study also

aimed to contribute ongoing discourse on making education more engaging, equitable, and future-oriented with the implementation of recreational pedagogy in inclusive education.

III. OBJECTIVES OF THE STUDY

The objective of this narrative review is to synthesize theoretical perspectives, practical applications, challenges, and policy implications of recreational pedagogy in the context of inclusive education, 21st-century skills and NEP 2020. Specifically, the review seeks to:

- Explored the theoretical foundations of recreational pedagogy and its relevance to skill-based, holistic education.
- Identify the benefits and challenges associated with integrating recreational approaches into inclusive education.
- Analyze how recreational pedagogy aligns with and can strengthen the policy vision of NEP 2020, particularly in fostering critical thinking, creativity, collaboration, communication, and social-emotional learning in inclusive education.

IV. METHODOLOGY

This paper presented a narrative review with systematic elements examining the emerging role of recreational pedagogy in fostering 21st-century skills within inclusive education. Despite strong policy advocacy, the research problem addressed is the limited integration of recreational pedagogical approaches in inclusive educational contexts. A comprehensive literature search was conducted across electronic databases including ERIC, Scopus, Google Scholar, and Taylor & Francis to explore relevant studies and policy documents. The search was limited to publications in English between 2000 and 2025 to capture both foundational perspectives and recent developments. Key search terms included combinations of: “*recreational pedagogy*”, “*play-based learning*”, “*arts and sports in education*”, “*21st-century skills*”, “*holistic development*”, “*inclusive education*”, “*inclusive pedagogy*”, and “*NEP 2020*”. Reference lists of included papers were also screened to identify additional relevant sources. The study included Peer-reviewed articles, books, policy documents, and reports that discuss recreational

pedagogy, play-based or arts-based learning, or their relation to 21st-century skills and inclusive educational reforms (with emphasis on NEP 2020). However, the study excluded articles not available in English, studies unrelated to education, purely medical rehabilitation contexts, or those without relevance to skills development or pedagogy. Instead of quantitative synthesis, a narrative thematic synthesis was employed in this study. Data were extracted on the basis of- definitions and theoretical foundations of recreational pedagogy, its application in educational contexts, links to 21st-century skills (creativity, collaboration, critical thinking, communication, digital literacy, SEL), Policy alignment with NEP 2020, and inclusive education, reported benefits, challenges, and gaps. The findings were organized into thematic categories and critically discussed in relation to NEP 2020 and contemporary educational needs as requires for 21st century skills in the context of inclusion.

V. THEORETICAL FOUNDATIONS OF RECREATIONAL PEDAGOGY

The origins of recreational pedagogy can be traced to notable educational theorists who recognized the importance of play, learning by doing, and social interaction in education. Friedrich Froebel (the founder of the kindergarten movement) recognized play as the essential method for child development with integrating games, songs, and creative endeavors into early education. Froebel stated that “the plays of childhood are the germinal leaves of all later life” (Russell & Aldridge, 2009). Froebel's principles advocated child-driven, autonomous play as a fundamental method for holistic learning and development with integrating physical, imaginative, social, and spiritual aspects in education (Hoskins & Smedley, 2019). John Dewey advanced the idea of experiential learning and emphasized that education should connect directly with life experiences, problem-solving, and active participation. Dewey's principles closely aligned with recreational pedagogy as it stressed on the methods like learning by doing, problem-based and project-based learning, critical thinking, creativity, and social competence (Sikandar, 2016). Maria Montessori similarly highlighted hands-on, child-centered activities, where learning is facilitated through exploration, movement, and purposeful play (Lillard, 2013.). Lev Vygotsky emphasized socio-cultural context and guided learning. He suggested that teachers scaffold

children's play, providing assistance and gradually withdrawing to foster independence within the child's Zone of Proximal Development (ZPD) (Alharbi, 2022). Collectively, these historical perspectives laid the theoretical foundation for recreational pedagogy which position play, creativity, and social engagement as integral in inclusive education.

VI. STUDIES AND PERSPECTIVES ON RECREATIONAL PEDAGOGY

Gulam classified the recreational activities as physical activities, mental and intellectual activities, Self-defence and self-discipline activities, cultural activities, art and craft activities and many more (Gulam, 2016). He also highlighted the importance of recreational activities for health, well-being and career. Singh investigated the impact of extra-curricular activities on academic, social skills among students and showed that participation in extra-curricular activities has a positive effect on academic and social skills (Singh & Mishra, 2013). Many studies revealed that recreational activities contribute to holistic or all-round development such as emotional, moral psychological, cognitive, physical, social, and linguistics development of the children (Vyas, 2019; Cuhadar and Diken, 2011). Recreational activities provide a meaningful setting for developing social literacy, maintaining social relationships, positive social interaction, developing friendships, self-esteem, and social skills (Mahoney, 2003; Lu Li, 2012; King et al. 2009; Agran et al. 2017). Recreational activities can be an effective tool for increasing and maintaining social integration in later adulthood life (Toepoel, 2013). Zarotis & Tokarski stated that the rise in leisure time and prosperity has led to the growth of recreational sports which is different from traditional sports by focusing less on competition and more on creativity, self-determination, communication, and physical experience (Zarotis & Tokarski, 2020). Therefore, recreational pedagogy can be operationalized for achieving the goals of 21st-century education with including all diverse learners.

Sports and games represent one of the most effective mediums of recreational pedagogy, fostering not only physical fitness but also essential 21st-century competencies. Participation in sports cultivates collaboration, as learners engage in team-based activities that require coordination, communication,

and shared responsibility, belongingness (Aquino, 2023). Equally, sports nurture resilience, as students learn to cope with success, failure, and the challenges of competition, developing perseverance and emotional strength (Zarotis & Tokarski, 2020). Furthermore, both individual and group games provide natural opportunities for leadership, as learners assume roles that require decision-making, strategic thinking, and the ability to motivate peers. NEP 2020 underscores the importance of sports and physical education in promoting holistic development and positions them as integral to the school curriculum. Beyond skill-building, sports and games also advance inclusion, offering adaptive opportunities for learners of different abilities and backgrounds to participate meaningfully. By embedding sports within educational contexts, recreational pedagogy transforms them into structured platforms for cultivating life skills, preparing learners to become empathetic, resilient, and collaborative citizens in the 21st century.

Arts, music, drama, and other forms of creative leisure constitute vital dimensions of recreational pedagogy which offer unique pathways to foster innovation and communication in education. Kakungulu found that collaboration and inclusion were naturally fostered within creative learning environments, aligning with contemporary goals of inclusive education. The author concluded that educators should adopt creative pedagogies to nurture emotional and intellectual growth, moving beyond traditional exam-oriented teaching models. It advocated the broader incorporation of arts-based learning as a catalyst for innovative, reflective, and inclusive educational transformation (Kakungulu, S. J., 2024). Engagement in these activities stimulates imagination, divergent thinking, and problem-solving, all of which are critical for nurturing essential 21st-century skill. For instance drama and role-play enhance communication by encouraging expression and empathy. On the other hand, music and visual arts promote emotional regulation and non-verbal communication. Elisondo emphasized that integrating creative arts into educational settings can boost motivation, foster emotional intelligence, and improve collaborative skills among students. This supports the call for more inclusive and creative pedagogical approaches, which leverage arts and leisure as vital tools for holistic student development (Elisondo et al., 2022). By embedding arts, music, drama, and creative leisure into learning environments, educators can transform

classrooms into vibrant ecosystems that inspire innovative thinking and effective communication, preparing learners for the demands of the knowledge economy and socially interconnected 21st-century world.

In the digital age, technology-enabled recreation has emerged as a transformative approach to learning blending engagement with skill development through tools such as gamification, virtual reality (VR), and digital platforms. Gamification applies game mechanics points, levels, challenges, and rewards within educational contexts to enhance motivation, persistence, and problem-solving (Utamayasa et al., 2025). VR and augmented reality (AR) offer immersive, experiential learning environments where learners can simulate real-world challenges, fostering creativity, collaboration, and critical thinking. Similarly, digital platforms for arts, music, and collaborative games provide interactive spaces for communication, innovation, and peer learning across geographical boundaries (Yang Jing, 2024). These tools are particularly relevant in the context of tele-rehabilitation and online education. They support inclusion by offering adaptable, accessible modes of engagement for diverse learners. Aligned with NEP 2020's emphasis on digital literacy and technology integration, technology-enabled recreation expands the scope of pedagogical practices by combining enjoyment with educational outcomes. When thoughtfully integrated, gamification, VR, and digital platforms elevate recreational pedagogy into a future-ready strategy that not only sustains learner engagement but also prepares students for the demands of a digitally interconnected world.

VII. CONTRIBUTION TO 21ST-CENTURY SKILLS THROUGH THE LENS OF NEP 2020

The National Education Policy (NEP) 2020 highlights the importance of equipping learners with 21st-century skills to meet the challenges of the dynamic world. The 21st century skills are important for holistic development of children which generally include critical thinking, creativity, problem-solving, collaboration, communication, and social-emotional competencies (Joynes & Rossignoli, 2019). Skill-based learning moves beyond memorization, prioritizing practical and analytical skills required for real-world problem-solving and employability (Gadavala & Buddhadev, 2025). Recreational

activities provide a natural pathway for developing these competencies.

Critical thinking and problem-solving are central outcomes of recreational pedagogy for developing 21st century skills. Arifin showed that inquiry-based learning enhances learners' critical thinking and problem solving skills by promoting questioning, experimentation, and reflective reasoning, particularly through guided and open inquiry models that empower learners to construct knowledge from hands-on exploration and investigation (Arifin et al., 2025). Inquiry-based recreational activities range from simulation games to exploratory projects and play-based tasks that allow learners to test ideas in real-world contexts with deeper cognitive engagement and flexible problem-solving strategies (Zapalska et al., 2012).

Recreation enhances creativity and innovation by providing a playful environment that stimulates divergent thinking, problem-solving, and experimentation. Research indicated that dynamic interplay between focused creative activity and restorative recreation promotes sustained innovation, cognitive agility, and holistic personal development that support creativity across educational and professional domains (Shen, 2023). It is also noticeable that NEP 2020 strongly emphasizes **arts-integrated pedagogy** and recognizes creativity as central to innovation and holistic education. Yen highlighted that role play and games significantly enhance children's collaboration, communication, conflict resolution, and team development skills (Yen et al., 2022). These experiences build interpersonal skills which align with NEP 2020's vision of education as a vehicle for teamwork and community building.

Recreational pedagogy supports social-emotional learning by creating inclusive environments where learners experience empathy, develop resilience, and practice self-regulation. Recreational activities provide a meaningful setting for developing social literacy, maintaining social relationships, positive social interaction, developing friendships, self-esteem, and social skills (Mahoney, 2003; Lu Li, 2012; King et al. 2009; Agran et al. 2017). Research also showed that participation in recreational activities improve mental health and promotes well-being (Murphy et al. 2008; Goodman et al. 2017;

Kuykendall et al. 2018). Recreational activities help in developing skills and competencies such as forming friendships and relationships, achieving mental and physical health and emotional well-being, developing self-identity, and acquiring a sense of meaning and purpose in life and also enhancing communication and social skills (Murphy et al. 2008; King et al. 2009; Kreiner and Flexer, 2009). Research indicated that SEL directly improves students' emotional intelligence, mental health, and peer relationships, helping manage stress, reduce anxiety, and create a psychologically safe environment for learning (Abraham, 2024).

Digital literacy is a crucial 21st-century skill encompassing the ability to effectively find, evaluate, create, and communicate information using digital technologies. Diana highlighted potential of gamification to foster critical digital skills, and problem-solving and also as a transformative tool to make digital literacy education more accessible, effective, and enjoyable (Diana et al., 2024).

VIII. CHALLENGES AND BARRIERS IN IMPLEMENTING RECREATIONAL PEDAGOGY IN INCLUSIVE EDUCATION

Barriers and challenges cannot be avoided while implementing recreational pedagogy in inclusive education. The multifaceted issues encompass pedagogical, structural, and attitudinal prevent Children with Special Needs participate in recreational activities with their peers. Pedagogical barriers arise when teaching methods do not accommodate diverse learning styles and abilities, leaving some students behind when recreational activities are not adapted or inclusive. Structural challenges include inadequate facilities, lack of specialized equipment, and poor infrastructure that hinder full participation of students with disabilities. Attitudinal barriers such as societal biases, stigma, and a lack of awareness among educators and families also impede the creation of supportive, accepting environments essential for inclusive recreation. Mathew highlighted challenges like misconceptions of the society, environmental barriers, attitude of people, physical disabilities, dependency, lack of confidence, and lack of proper information which create hinder in full participation of these children (Mathew, M. et al., 2022).

IX. KEY FINDINGS

The findings of this narrative review were synthesized and organized into thematic categories and critically analyzed in relation to the National Education Policy (NEP) 2020 and the key demands of modern education in the 21st century particularly within the framework of inclusive education.

Theoretical and Conceptual Foundations

Recreational pedagogy is deeply rooted in the works of Froebel, Dewey, Montessori, and Vygotsky. All of them had emphasized experiential, play-based, and socially interactive learning essential for education. These theoretical perspectives collectively validate the pedagogical significance of recreation as a medium for holistic growth and inclusive participation.

Recreational Pedagogy as a Catalyst for Holistic and Skill-Based Learning

Recreational activities such as play, sports, arts, music, and drama serve as powerful pedagogical tools that promote active engagement and experiential learning. Research showed that recreational activities help in developing skills and competencies such as forming friendships and relationships, achieving mental and physical health and emotional well-being, developing self-identity, and acquiring a sense of meaning and purpose in life and also enhancing communication and social skills (Murphy et al. 2008; King et al. 2009, (Kreiner and Flexer, 2009). Moreover, these methods naturally cultivate creativity, critical thinking, problem-solving, and collaboration as core competencies identified essential for 21st-century learners.

Alignment with NEP 2020's Vision for Inclusive and Experiential Education

The NEP 2020 advocates learner-centered, flexible, and inclusive pedagogies (NEP, 2020). Recreational pedagogy aligns with this vision by offering multi-sensory, participatory, and inclusive learning experiences that address diverse learner needs.

Social-Emotional Learning and Well-Being

The review revealed that recreational activities foster empathy, resilience, and emotional regulation which support social-emotional learning (SEL). Participation in recreational activities improve mental health and promotes well-being (Murphy et al. 2008; Goodman et al. 2017; Kuykendall et al. 2018) Such approaches enhance students' mental health and sense of belonging which is key components of inclusive education.

Barriers to Implementation

Despite tremendous benefits, there are many barriers and challenges which can create hinders in implementation of recreational pedagogy. These challenges include curriculum rigidity, lack of teacher training, limited access to resources in underprivileged contexts, and insufficient policy-level guidance on integrating recreation into formal education systems.

Gaps and Future Directions

The review identified a significant lack of empirical and context-specific research, especially in Indian settings, exploring the implementation of recreational pedagogy within inclusive education frameworks under NEP 2020. Future research should adopt longitudinal, cross-cultural, and policy-oriented approaches to strengthen evidence for practice and policymaking.

X. FUTURE DIRECTIONS FOR ADVANCING RECREATIONAL PEDAGOGY

Strengthening NEP 2020 Implementation through Recreational Learning

Policymakers and school leaders can explicitly embed recreational pedagogy into curricula and classroom practices, ensuring that play, sports, arts, and experiential learning are recognized as core educational strategies rather than optional activities.

Professional Development for Educators

Continuous teacher training programs are essential to equip educators with the knowledge, skills, and confidence to design, facilitate, and assess

recreational learning experiences effectively. This includes understanding inclusive practices, assessment strategies, and technology integration.

Integration with Assistive Technologies for Inclusive Pedagogy

Leveraging digital tools and assistive technologies can make recreational activities accessible to learners with diverse abilities, promoting equity and participation. Virtual platforms, gamification, and adaptive learning technologies can expand the reach and impact of recreational pedagogy.

Addressing Research Gaps

Future studies should explore longitudinal impacts of recreational pedagogy, cross-cultural applications, and policy-oriented evaluations to provide robust evidence for its effectiveness. Such research can guide best practices, inform teacher training, and support scalable interventions aligned with NEP 2020.

By pursuing these directions, recreational pedagogy can evolve from a supplementary approach to a central strategy for holistic, inclusive, and future-ready education, preparing learners to thrive academically, socially, and emotionally in the 21st century.

XI. CONCLUSION

The present review underscored that recreational pedagogy holds immense potential to transform inclusive education and to realize the vision of the National Education Policy (NEP) 2020 in fostering 21st-century skills among all learners. The theme of this study was grounded in strong theoretical traditions of learning through recreation drawn from Froebel's advocacy for play as the highest form of child development, Dewey's emphasis on experiential learning, Montessori's child-centered approach, and Vygotsky's sociocultural theory, which highlights learning as a socially mediated process. Together, these perspectives affirm that play, arts, and leisure are not peripheral to education but central to developing the whole child.

The review of contemporary literature further demonstrated that recreational activities such as play-based learning, sports, arts, music, drama, and digital gamification enhance learner engagement, motivation, and creativity, while also supporting

social-emotional learning (SEL), empathy, and inclusion. Such practices align closely with NEP 2020's commitment to holistic, skill-based, and inclusive education. The study also highlighted creativity, collaboration, critical thinking, communication, and digital literacy as core outcomes of schooling.

The findings revealed that integrating recreational approaches within inclusive education supports diverse learners by creating equitable, participatory, and joyful learning environments. However, persistent challenges including limited teacher training, rigid curricula, resource inequities, and the undervaluing of recreation in formal education continue to hinder implementation.

Overall, the study concluded that recreational pedagogy offers a promising framework for fostering 21st-century skills through inclusive, engaging, and learner-centered experiences. For sustainable transformation, there is a pressing need to strengthen teacher capacity-building, policy integration, and research initiatives that validate and expand the role of recreation in education. By embedding recreational pedagogy within the inclusive framework of NEP 2020, education systems can move closer to achieving the goal of nurturing creative, resilient, and socially responsible citizens for the 21st century.

Ethical Compliance

- This study is a narrative review based on previously published literature.
- No human participants or personal data were directly involved.
- Hence, formal ethical approval was not required.
- All sources and studies reviewed were properly cited and acknowledged.
- The review adheres to academic integrity and ethical research standards.
- No conflict of interest or funding bias is declared.

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