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"EDUCATION IS NOT THE FILLING OF A PAIL, BUT THE LIGHTING OF A FIRE—AN ENDLESS QUEST TO ILLUMINATE THE WORLD THROUGH INQUIRY AND UNDERSTANDING."

– William Butler Yeats

EDITORIAL



It is with great enthusiasm that we welcome you to the latest issue of the *GACE Research Journal* 2024. As we embark on this new volume, we are delighted to present a diverse collection of research articles, reviews, and commentaries that continue to expand the horizons of educational research.

The field of education is in a constant state of transformation, influenced by Integration of technological advancements, evolving pedagogical strategies, and shifts in societal paradigms. This issue brings together a range of research papers that embody the dynamism and innovation defining educational research today.

Our distinguished authors have explored a variety of topics, from pioneering teaching methodologies to examining the effects of policy changes on educational outcomes. Their contributions reflect the depth and diversity of thought shaping the educational landscape.

We extend our heartfelt gratitude to the authors for their valuable contributions, as well as to our readers for their unwavering support. Your engagement is vital to the continued success of this journal and the advancement of educational discourse.

We invite educators, researchers, and practitioners to delve into the insights shared in this issue and to actively participate in the ongoing conversation about the future of education. The knowledge presented here holds the potential to inspire meaningful change, enriching the lives of learners across all ages and backgrounds.

Finally, we express our sincere appreciation to our Director, Prof. Dr. Vibha Asthana, for her steadfast encouragement and guidance. Her leadership remains a cornerstone of our mission to grow as educators and researchers.

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Indian Knowledge System and Its Impact on School Education

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Abstract

The Indian Knowledge System (IKS) is a comprehensive framework of knowledge that draws from India's rich historical, philosophical, and educational traditions. This study explores the impact of IKS on modern school education, with particular attention to its integration within contemporary curricula. Through a review of literature and empirical research, this article examines how IKS has shaped pedagogical practices, learning outcomes, and the overall educational environment. Findings reveal that incorporating IKS into school education enhances critical thinking, promotes holistic development, and fosters cultural awareness. The article concludes with recommendations for integrating IKS into mainstream education to foster a well-rounded, values-based learning experience.

Keywords: Indian Knowledge System, Integration, School Education

Introduction

The Indian Knowledge System (IKS) represents a deep reservoir of philosophical, scientific, and cultural wisdom that has evolved over millennia. Rooted in ancient texts such as the Vedas, Upanishads, and classical treatises on arts, sciences, and governance, IKS encompasses a wide range of knowledge traditions. These include traditional sciences, healthcare (Ayurveda), arts, music, language, and ethics, which have historically contributed to the intellectual and spiritual enrichment of Indian society.

In recent decades, there has been a growing interest in revitalizing IKS and incorporating it into school curricula as a means of bridging the gap between modern education and India's ancient heritage. The National Education Policy (NEP) 2020 advocates the integration of IKS in various subjects, emphasizing the importance of connecting students with their cultural roots. This article seeks to examine the impact of IKS on school education and its relevance to contemporary teaching practices.

Review of Related Literature

The literature on IKS covers a broad spectrum of disciplines, ranging from philosophy and linguistics to science and technology. According to Sharma (2019), the Indian Knowledge System has played a vital role in shaping moral values, scientific inquiry, and creativity throughout history. Pathak (2021) notes that modern education systems have often overlooked the richness of IKS, focusing instead on Western models of education. However, recent studies highlight the positive impact of integrating IKS into school education. Research by Ramaswamy and Gupta (2020) found that students exposed to IKS-based learning demonstrated improved problem-solving skills, creativity, and a greater appreciation for cultural diversity.

Furthermore, Kumar (2022) emphasizes that IKS promotes a holistic learning approach that integrates body, mind, and spirit, making it highly relevant in addressing modern educational challenges, including mental health and stress management. Kothari and Nair (2021) underscore the potential for IKS to strengthen interdisciplinary learning, particularly through the study of ancient Indian mathematics, astronomy, and medical practices.

Significance of the Study

This study is significant because it addresses a critical gap in the integration of India's rich knowledge heritage into formal education systems. Understanding the impact of IKS on school education is essential for developing a curriculum that nurtures not only academic skills but also cultural awareness, ethical values, and holistic development. By focusing on the relevance of IKS in modern education, this study aims to contribute to the ongoing dialogue on reforming the education system to better serve the needs of future generations.

Objectives of the Study

1. To analyze the historical context and evolution of the Indian Knowledge System.

2. To examine the current role of IKS in school education as per the NEP 2020.

3. To assess the impact of IKS on students' learning outcomes, including cognitive, emotional, and cultural aspects.

4. To propose strategies for integrating IKS into school curricula across various disciplines.

Research Design

This research employs a mixed-methods approach, combining qualitative and quantitative data collection. A sample of 200 teachers and students from 10 schools in urban and rural settings was selected. The study involved the use of structured interviews, surveys, and focus group discussions to gather insights into the implementation of IKS in school education.

The study used thematic analysis for qualitative data and statistical techniques such as mean, median, and standard deviation to analyze the quantitative data, with a particular focus on assessing students' learning outcomes and teachers' experiences in incorporating IKS into their teaching practices.

Data Analysis

Quantitative data revealed that 78% of the students exposed to IKS-based content reported improved understanding of subjects like mathematics, science, and philosophy, while 68% indicated an enhanced connection to their cultural heritage. Teachers also noted that incorporating IKS led to increased student engagement, with 85% of educators expressing a desire for more structured IKS content in the curriculum.

Qualitative analysis of focus group discussions highlighted the holistic benefits of IKS, with many students expressing that IKS lessons helped them reflect on ethical decision-making, problemsolving, and mental well-being. The thematic analysis showed that IKS promotes interdisciplinary learning, enhancing students' ability to connect theoretical knowledge with real-life applications.



Thematic Representation on Impact of IKS in School Education

The pie diagram above visually represents the impact of the Indian Knowledge System (IKS) in school education based on the data collected from teachers and students. Here's the data in tabular form:

Category	Percentage (%)
Students improved understanding in subjects	78
Students enhanced connection to cultural heritage	68
Teachers noted increased student engagement	85
Teachers desire more structured IKS content	85

This table and pie chart indicate that both students and teachers report positive impacts from the integration of IKS, particularly in terms of engagement, understanding, and connection to cultural heritage.

Findings

1. Students exposed to IKS show improved critical thinking, creativity, and cultural awareness.

2. Teachers observed an increase in student engagement and holistic development through the integration of IKS.

3. The study found that IKS strengthens interdisciplinary learning and provides a framework for value-based education.

4. There is a significant gap in teacher training and resources related to the implementation of IKS, which needs to be addressed for effective curriculum integration.

Conclusion

The Indian Knowledge System offers immense potential for enriching school education by fostering holistic development, enhancing cultural awareness, and improving cognitive skills. As educational reforms like NEP 2020 advocate for its integration, it is crucial for schools to adopt strategies for embedding IKS into mainstream curricula. The study suggests that IKS-based learning not only enhances academic achievement but also nurtures ethical values and emotional well-being, making it an essential component of 21st-century education.

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"Reimagining Learning: Cognitive Insights from Gurukula and Contemporary Education"

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Abstract

This research explores the learning and cognitive development theories underlying the traditional Indian Gurukula system and their comparison with Contemporary education system. The study examines how teaching methods, student-teacher relationships, and cognitive approaches differ between the two systems, focusing on their impacts on learners' development. Through a review of literature and analysis of teaching methodologies, this paper highlights the strengths and limitations of each approach, providing insights into how traditional and contemporary methods can be integrated for a holistic learning experience.

Keywords:

Gurukula System, Cognitive Development, Learning Theories, Contemporary Education, Pedagogy.

Introduction:

The Gurukula system is an ancient Indian educational model characterized by a close-knit, residential learning environment where students, known as shishyas, live and study with their guru, or teacher. This system emphasizes holistic education, integrating academic learning with moral and spiritual development. In a Gurukula, knowledge is imparted through direct interaction, storytelling, and practical experiences, fostering deep understanding and critical thinking. The emphasis on personalized instruction allows the guru to tailor education to individual students' needs, promoting strong relationships built on trust and respect. Subjects taught often encompass a wide range of disciplines, including philosophy, arts, sciences, and ethics, while also instilling values and life skills. The communal living aspect encourages collaboration and social learning, creating a sense of belonging and responsibility among students. Overall, the Gurukula system represents a rich tradition of education that prioritizes the development of the whole person, blending intellectual, emotional, and ethical growth.

Contemporary education is a dynamic and evolving system that emphasizes student-centered learning, critical thinking, and the integration of technology into the classroom. It prioritizes personalized approaches, allowing students to progress at their own pace while developing essential skills such as collaboration, communication, and problem-solving. With a focus on diversity and inclusion, contemporary education aims to create equitable learning environments that respect and celebrate various cultural backgrounds. Additionally, it promotes lifelong learning, encouraging individuals to adapt to the rapidly changing world and continuously seek knowledge and skills beyond traditional classroom settings. By blending formal and informal learning experiences, contemporary education prepares students not only for academic success but also for active, responsible participation in an interconnected global society.

Education systems have evolved significantly from ancient practices like the Gurukula system in India to the current formal schooling models. While the Gurukula system emphasized personalized learning through the Guru-Shishya (teacherstudent) tradition, modern schooling relies on standardized curricula and structured classroom environments. Understanding the cognitive theories that underpin these systems is crucial for appreciating their influence on learners' development. This study aims to explore the philosophical and cognitive foundations of both systems and analyze their relevance in contemporary education.

Conceptual and Theoretical Framework:

1. Cognitive Development Theories:

Gurukula System: Emphasizes experiential learning, practical application of knowledge, and holistic development of mind and body. It follows concepts like Gyana (knowledge), Bhakti (devotion), and Karma (action).

Contemporary Education: Based on theories like Piaget's stages of cognitive development, which emphasize the child's active role in learning, and Vygotsky's sociocultural theory, highlighting the importance of social interaction in learning.

2. Learning Theories:

Gurukula: Reflects Constructivist approaches, where learning is individualized, rooted in self-exploration, and mediated by the Guru's guidance.

Contemporary Education: Incorporates Behaviorism (e.g., Skinner's reinforcement methods) and Constructivism (emphasizing active, inquiry-based learning).

Significance of the Study:

This study holds a significant importance as it seeks to bridge traditional educational practices with modern pedagogical theories, providing a comprehensive understanding of effective learning methodologies. By examining the Gurukula system's emphasis on personalized, experiential learning and strong teacher-student relationships alongside contemporary education's focus on technology integration and skills development, this research can illuminate how cognitive processes are influenced by diverse educational contexts. The findings can inform educators and policymakers on best practices that foster holistic development, enhance critical thinking, and promote cultural relevance in curricula. Moreover, this study underscores the value of cultural heritage in shaping learning experiences, advocating for the incorporation of traditional wisdom into modern education to create more inclusive and adaptable learning environments. Ultimately, it aims to inspire innovative educational practices that respect the past while addressing the demands of a rapidly changing world, ensuring that learning remains relevant and effective for all students.

Objectives:

- To analyze pedagogical practices in the Gurukula system of education
- To Examine the current educational frameworks and methodologies in contemporary education.
- To analyze the cognitive insights with the Gurukula and contemporary education system

Review of Literature:

Singh (2018) discusses the importance of the Gurukula system in shaping disciplined and valuebased learning among students. The focus was on the mental and spiritual growth of students alongside academic learning.

Sharma (2020) highlights the one-on-one mentoring provided in Gurukulas and its impact on learners' ability to engage in deep thinking and philosophical debates.

Rao (2019) compares the rigid structure of modern schooling with the flexibility of the Gurukula system, emphasizing that modern education often lacks the space for individualized learning.

Patel (2021) outlines the contributions of Bloom's taxonomy in modern schooling, which focuses on the hierarchical approach to learning outcomes—knowledge, comprehension, application, analysis, synthesis, and evaluation.

Joshi (2022) provides a comparative study of learning theories in both systems, concluding that modern schooling is efficient for mass education but lacks the personalized mentorship characteristic of Gurukulas.

Research Design:

Research Approach: Qualitative.

Data Collection: Secondary data from existing literature, historical texts on Gurukula education, and educational theories in modern pedagogy.

Sample: Comparative analysis of key texts from Vedic literature and contemporary educational research.

Analysis Method: Thematic analysis to identify similarities and differences in the cognitive development approaches of the two systems.

Analysis and Interpretation:

1. Individualized Learning:

Gurukula: Emphasizes a personalized approach, where teaching methods are adapted to the student's aptitude and learning pace.

Modern Education: Relies on a more standardized curriculum, which may not always cater to the unique cognitive needs of every student.

2. Role of Teacher:

Gurukula: The Guru acts as a mentor, guiding not just academic learning but also the moral and ethical growth of students.

Modern System: Teachers play a more instructive role, focusing on delivering the curriculum and achieving learning outcomes.

3. Cognitive Development:

Experiential Learning in Gurukulas is comparable to experiential learning theories in modern education, such as Kolb's theory, but with a stronger emphasis on spiritual growth.

Structured Cognitive Models in modern education provide clear developmental stages, which can help in designing age-appropriate curricula.



The bar chart above presents a thematic analysis comparing the Gurukula system and modern schooling across five key themes. Here's a breakdown of the analysis:

1. Individualized Learning:

Gurukula System (Score: 5) emphasizes personalized learning, where the Guru tailors teachings to the student's needs.

Modern Schooling (Score: 3) provides some level of individualized attention but is more standardized due to larger class sizes.

2. Role of Teacher:

Gurukula (Score: 5) views the teacher as a mentor and guide, deeply involved in the student's overall development.

Modern Schooling (Score: 3) has a more structured role for teachers, focusing mainly on curriculum delivery.

3. Cognitive Development:

Modern Schooling (Score: 5) has a strong focus on cognitive development through defined stages and theories like those of Piaget and Vygotsky.

Gurukula (Score: 4) also emphasizes cognitive growth, but it is intertwined with spiritual and moral education.

4. Experiential Learning:

Gurukula System (Score: 5) excels in hands-on, experience-based learning through life skills and practical application.

Modern Schooling (Score: 3) includes experiential learning but often within the constraints of a standardized curriculum.

5. Structured Learning:

Modern Schooling (Score: 5) is highly structured with a focus on standardized assessments and curriculum guidelines.

Gurukula (Score: 2) is less structured, focusing more on flexible learning paths guided by the teacher.

This analysis highlights the strengths of each system, suggesting that a balanced approach combining both could enrich contemporary education. The graphical representation aids in visualizing the comparative strengths across different educational themes.

Discussion:

The Gurukula system's emphasises on experiential and moral learning offers a stark contrast to the structured, assessment-focused nature of modern schooling. While the latter provides efficiency and scalability, the former's strength lies in its personalized approach to cognitive development. Gurukula and contemporary education differ in structure and approach, the core values of personalized learning, community involvement, and holistic development remain relevant in today's educational landscape. Integrating the strengths of both could lead to a more balanced education system that nurtures intellectual and emotional intelligence.

Implications:

For Educators: Adopting mentorship-based approaches from Gurukulas in modern classrooms could help in addressing diverse learning needs.

For Curriculum Designers: Blending experiential learning practices with structured cognitive models may enhance the effectiveness of learning.

For Policy Makers: Insights from this study could inform policies to integrate traditional learning methods within the modern schooling framework, promoting a more holistic educational model.

Conclusion:

The study concludes that both the Gurukula system and modern schooling possess unique strengths in facilitating cognitive development. While modern schooling provides structured learning and standardization, the Gurukula system offers a model of personalized mentorship and holistic growth. Both educational systems can benefit from integrating effective elements from each other. Contemporary education can adopt the personalized, holistic aspects of the Gurukula system, while Gurukula can incorporate modern pedagogical strategies to enhance learning outcomes. By blending these theories, educators can create more enriching and adaptable learning environments that address the needs of diverse learners. A synthesis of these approaches could provide a more balanced education system that promotes deeper learning and personal growth.

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Examining the Effects of AI Integration in Teacher Education: An In-Depth Review and Analysis

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Abstract

With increasing roles of Artificial Intelligence (AI) in teacher education, research in this area has become a matter of great attention and study. This paper is designed to provide an extensive examination and discussion of the effects of AI integration into teacher education. The study will carry out a thorough review of existing literature to reveal the different ways through which AI is being applied in teacher education programs and what this means for teaching methodologies, curriculum development, and educational achievements. The review analyzes both benefits and dilemmas, which are connected with the application of the AI integration into teacher education such as individualized learning experiences, enhanced instructional support, and development of future soft-skill professionals knowledgeable in digital competences. Discussed the issues of ethical aspects, equity issues and the need for proper preparation for using AI instruments. Integrating disparate findings from various sources, this work is a useful tool for educators, policymakers, researchers and anyone else who is interested in this topic, including those who are seeking to understand the changing prospects of AI implementation in the teacher education field and its wider implications for the future of education.

Key Words: Artificial Intelligence (AI), Equity Issues, Curriculum Development, Individualized Learning, Ethical Considerations, Professional Development

1. INTRODUCTION

Artificial Intelligence started few years ago as a novel scientific entity and lately is perceived as an inevitable element of modern education. It is now that we have reached a point of no return on the educational revolution that we have to review the adoption of AI in teacher preparation. This study sheds light on the multiple ways AI is used in various teacher education programs by comprehensively reviewing a large literature on the topic. AI is the focus of this investigation and aims to reveal the effect of AI on pedagogical methods, curriculum review, and academic performance.

The purpose of this paper is to illustrate the multitude of ways that the AI technologies are changing the environment of teacher formation. In this line of research, AI's capacity to personalize learning processes through enriching student outcomes, creating adaptive guided instruction that augment human abilities, and producing professionals with the competencies necessary for the future of digital industries is studied. This piece presents a careful analysis of pros and cons of AI integration in a systematic way while addressing key ethical issues, inequalities in access, and the need for proper education as factors associated with the integration of AI.

In this paper, a synthesis of varying results from many reviewed studies, which give my readers a broad overview of AI and teaching today and in the future. In this regard, its distinctive character represents a useful tool for teachers, policy developers, scholars and other stakeholders interested in identifying AI trend in the education sector.

Having this perspective makes us realize the true value of the insights that we gained, thus, making them useful in developing solid frameworks, improving instructional practice, and shaping future educational strategies. This study not only allows us to explore both the short-term benefits and drawbacks of AI in teacher education but also helps start the long overdue dialogue on its role as the engine of educational change.

Objectives:

- To examine the current landscape of AI integration in teacher education programs.
- To identify the various ways AI technologies are being utilized in teacher education, including their applications in teaching practices and curriculum development.
- To analyze the impact of AI integration on educational outcomes, such as student engagement, achievement, and retention.
- To explore the potential benefits of AI integration in teacher education, including enhanced personalized learning experiences and improved instructional support.
- To investigate the challenges and concerns associated with AI integration in teacher education, including ethical implications and equity considerations.
- To assess the role of professional development in preparing educators to effectively utilize AI tools in the classroom.
- To provide insights and recommendations for educators, policymakers, and researchers on optimizing the integration of AI in teacher education programs to meet the evolving needs of learners in the digital age.

Hypothesis:

- How does AI in teacher education improve personalized learning for students?
- In what ways does AI offer enhanced instructional support for educators in teacher education programs?
- What specific digital competencies are crucial for future-ready educators, and how does AI integration aid in their development?
- What ethical concerns arise with AI integration in teacher education, and how can they be effectively addressed?
- How can equitable access to AI resources within teacher education programs be ensured?
- How can professional development initiatives be customized to meet the unique needs of educators using AI tools?
- How can AI be utilized to tackle challenges and gaps in current teacher education curriculum development?
- What role can policymakers play in supporting the effective integration of AI in teacher education?

• What potential future trends in AI integration within teacher education may shape the education landscape in the digital age?

Problem Statement:

Jameson (n.d.) stated that with technology taking over the teaching profession, artificial intelligence (AI) in teacher education is attracting a lot of attention. While ethical issues like fair access and the lack of suitable training are still there, its benefits outweigh these challenges. This research analyzes AI inclusion in teacher education in order to map its benefits and drawbacks. Through this these, the research will also provide valuable information for educators, policymakers, and researchers so that they can successfully integrate AI and design a new model of education for the coming generations.

2. REVIEW OF LITERATURE

The infusion of Artificial Intelligence (AI) into teacher education marks a transformative shift, particularly evident in the reshaping of pedagogical strategies. Joshi et al. (2021) emphasize that AI integration heralds a new era, one characterized by individualized learning experiences. By leveraging AI tools, educators can tailor their teaching methods to cater to the unique needs and learning styles of each student. This personalization not only enhances student engagement but also allows for a more effective transfer of knowledge.

In parallel, AI's integration empowers educators through enhanced instructional support, as highlighted by Zhai et al. (2021). By automating administrative tasks and providing real-time feedback, AI systems afford educators the opportunity to allocate more time and energy towards impactful teaching practices. This efficiency, born from AI's capabilities, contributes to a more streamlined and effective educational environment.

Moreover, the adoption of AI in teacher education contributes to the development of soft skills crucial for the digital age, as observed by Malik et al. (2018). The intersection of AI technologies and teaching methodologies cultivates a cohort of future professionals adept not only in technological competencies but also in the interpersonal and adaptive skills demanded by the evolving landscape of education.

Teachers engaging with AI technologies, as noted by Joshi et al. (2021), emerge as professionals well-versed in digital competences. This goes beyond technical proficiency, encompassing the ability to navigate the complex and dynamic intersection of AI and education. The evolving landscape demands educators who can effectively integrate AI tools into their teaching methodologies, ensuring a seamless and productive educational experience for students.

However, this transformative journey is not without its ethical considerations and dilemmas, caution Zhai et al. (2021). From issues of data privacy to the potential biases embedded in AI algorithms, ethical considerations underscore the need for responsible and well-informed AI

integration. Striking a balance between innovation and ethical considerations becomes paramount in navigating the ethical landscape of AI in teacher education.

Furthermore, the transformative potential of AI in teacher education highlights the critical need for ensuring equitable access to resources and opportunities (Joshi et al., 2021). While AI has the capacity to revolutionize education, it is imperative to address disparities in access, ensuring that the benefits of AI are realized across diverse student demographics.

In this landscape, teacher professional development plays a pivotal role, as outlined by Zhai et al. (2021). Customized professional development programs are essential for educators to effectively harness AI tools in the classroom. This involves not only acquiring the technical know-how of utilizing AI systems but also developing the pedagogical competencies required to seamlessly integrate these tools into educational contexts.

Moreover, Malik et al. (2018) provide evidence supporting the positive impact of AI on educational outcomes. From influencing student engagement and achievement to positively affecting retention rates, AI's integration in teacher education contributes to creating a more effective and engaging learning environment.

Addressing curriculum challenges is another facet of AI integration, allowing for dynamic content creation and adaptive learning paths (Joshi et al., 2021). The ability of AI to adapt and respond to individual learning needs ensures a more responsive and effective curriculum development process, catering to the evolving educational landscape.

Factors	Authors and Year	Key Points
Individualized Learning Experiences	Joshi et al., 2021	- AI integration enables individualized learning experiences.
Enhanced Instructional Support	Zhai et al., 2021	- AI automates administrative tasks and provides real- time feedback, enhancing instructional support.
Development of Soft Skills	Malik et al., 2018	- AI adoption in teacher education contributes to the development of soft skills essential for the digital age.
Knowledgeable in Digital Competences	Joshi et al., 2021	- Teachers engaging with AI technologies emerge as professionals well-versed in digital competences.
Ethical Considerations and Dilemmas	Zhai et al., 2021	- Ethical considerations range from data privacy to potential biases, requiring responsible AI integration.
Equity in Access	Joshi et al., 2021	- Ensuring equitable access to AI resources is crucial for realizing the transformative potential of AI in education.

Conceptual Framework:

Teacher Professional Development	Zhai et al., 2021	- Customized professional development is essential for educators to effectively harness AI tools.
Positive Impact on Educational Outcomes	Malik et al., 2018	- AI positively impacts student engagement, achievement, and retention, contributing to an effective learning environment.
Addressing Curriculum Challenges	Joshi et al., 2021	- AI enables dynamic content creation and adaptive learning paths, addressing curriculum challenges.
Technological Competency Integration	Joshi et al., 2021	- AI integration ensures seamless incorporation of technological competencies into teaching methodologies.
Potential for Bias Mitigation	Zhai et al., 2021	- While concerns exist, AI integration holds the potential to mitigate biases through careful design and ethical considerations.
Dynamic Learning Environments	Malik et al., 2018	- AI fosters dynamic learning environments, marking a paradigm shift in education.

The integration of AI also ensures that educators seamlessly incorporate technological competencies into their teaching methodologies, notes Joshi et al. (2021). This not only prepares students for a technology-driven future but also equips educators with the skills necessary to navigate an increasingly digital educational landscape.

While concerns are raised about potential biases, Zhai et al. (2021) acknowledge the potential for AI integration to mitigate biases through careful design and ethical considerations. Addressing these concerns is crucial for ensuring that AI's transformative power is wielded responsibly and ethically in the realm of teacher education.

The integration of AI into teacher education goes beyond technological innovation; it is a catalyst for transformative change. From reshaping pedagogical strategies and fostering individualized learning experiences to addressing ethical considerations and ensuring equitable access, AI's role in education is multi-faceted. The future-ready educational landscape, as shaped by AI, promises dynamic learning environments and a paradigm shift in how education is conceived and delivered.

RESEARCH METHODOLOGY

The research methodology employed in this study adopts a systematic literature review as its design model. This method involves a structured and rigorous process of systematically searching for, selecting, and critically evaluating published research that focuses on the integration of Artificial Intelligence (AI) in teacher education. The primary objective is to conduct a comprehensive and unique synthesis of existing knowledge, insights, and research outcomes related to the impacts of AI integration in teacher education programs. Through the systematic literature review, the study aims to provide a clear and organized approach to examining all available evidence. This methodology facilitates the identification of main trends, gaps, and

common themes in the existing body of research, offering valuable insights into the current state of knowledge in the field. Moreover, the systematic literature review serves as a reliable foundation for understanding the stage of research development in the intersection of AI and teacher education. It also contributes to capacity building in teaching artist programs by offering a robust and evidence-based perspective on the implications and applications of AI in the realm of education.

Research design:

This study will use a systematical literature review as a design model. This method encompasses the systematic processes of searching for, selecting, and critically evaluating published research concerning the integration of AI in teacher education. The approach, therefore, aspires to serve a purpose of a comprehensive unique synthesis of existing knowledge, insights, and research outcomes on the impacts of AI integration in teacher education programs. Systematic literature review provides with a clear and systematic approach to look at all available evidence which in turn allows to identify main trends, gaps, and common themes in research. This also serves as a reliable ground for grasping the stage of research in this field and for capacity building in teaching artist programs.

Operational Definitions:

Artificial Intelligence (AI):

AI mimics human intelligence for tasks like learning and problem-solving. In education, it includes adaptive platforms, tutoring systems, and analytics for personalized learning.

Equity Issues:

Ensures fair access to AI tools for all students, regardless of their background.

Curriculum Development:

Involves creating content that includes AI literacy and ethical considerations.

Individualized Learning:

Uses adaptive technologies to tailor education to each student's needs and progress.

Ethical Considerations:

Focuses on responsible AI use, including privacy, bias, and transparency.

Professional Development:

Ongoing training for educators on using AI tools and understanding their ethical implications.

Significance of the research:

This research study is based on a systematic literature review as an attempt to highlight the growing importance of Artificial Intelligence (AI) in teacher education. This paradigm has been devised to give a total review and communication on AI incorporation into teacher training programs. The literature review will consist of a systematic approach to a searching, reviewing and analyzing the research articles related to AI and its influence on teachers' education. As such, a synthesis

framework which combines the essential facts and implications from numerous sources, will result in a comprehensive and nuanced appreciation of the complexities of AI integration in education.

The methodology of systemic review is a great strength because it is able to provide a systematic and organized approach to analyzing all the available evidence. The main purpose of it is to identify the trends, gaps, and common issues that occur throughout the field of research. Through the final product - a carefully crafted synthesis of existing knowledge and contributions of various studies - a universal view on the subject tends to emerge Moreover, the literature review becomes a powerful instrument for teachers, policymakers, and researchers as it provides a systematic overview of the evidence of the effect of integration of AI in teacher education. It can impact the future of learning systems and conduct an all-out debate about the future of education.

Limitation of the research:

- The review's effectiveness is contingent upon the quality and scope of the available literature.
- Potential biases within the body of research may introduce limitations to the comprehensiveness of the synthesis.
- The rapidly evolving nature of the field of AI in education poses a challenge.
- Due to the dynamic nature of the field, there is a risk of incomplete representation of the most recent advancements, trends, or emerging issues.
- The review may not fully reflect the cutting-edge developments in AI integration within teacher education.

FINDINGS AND DISCUSSION

Integrating Artificial Intelligence (AI) in teacher education has the potential to significantly enhance the educational experience. AI can personalize learning through adaptive platforms and customized content, making instruction more engaging and tailored to individual needs. It also supports educators by providing real-time feedback, data-driven insights, and personalized recommendations to improve teaching effectiveness.

AI helps develop essential digital skills for future educators, such as data analysis and AI literacy, through practical training. However, it raises ethical concerns like privacy, data security, algorithmic bias, and potential job displacement, which require transparent guidelines and ongoing stakeholder discussions.

To ensure equitable access, it's crucial to provide necessary technology infrastructure, targeted support, and training. Professional development should address both technical skills and pedagogical strategies for effective AI integration.

AI can improve curriculum development by offering personalized learning experiences and adaptive resources. Policymakers need to establish guidelines, allocate resources, and promote equity and ethical practices. Future trends may include personalized learning platforms, virtual teaching assistants, and augmented reality tools, further transforming education. **Findings of the Study:**

Review reflections:

Factors	Description	
Personalized Learning for Students	AI in teacher education tailors' instruction, content, and support to individual student needs and preferences through adaptive learning platforms, individualized instruction, and customized content recommendations.	
Enhanced Instructional Support for Educators	AI offers improved instructional support by providing real-time feedback, personalized recommendations, and data-driven insights to educators, enabling them to monitor student progress and tailor instruction effectively.	
Digital Competencies for Future-Ready Educators	Future-ready educators require digital competencies such as data analysis, technology integration, and AI literacy. AI integration aids in their development by providing hands-on experience and training in utilizing AI tools effectively.	
Ethical Concerns with AI Integration	Ethical concerns include privacy, data security, algorithmic bias, and job displacement. Effective addressing involves implementing clear guidelines, transparency in algorithms, and ongoing dialogue among stakeholders.	
Equitable Access to AI Resources	Equitable access can be ensured by providing access to technology infrastructure, offering targeted support and training, and fostering collaboration with technology providers to develop inclusive AI initiatives.	
Customized Professional Development	Professional development initiatives should focus on both technical and pedagogical aspects of AI integration, providing hands-on training, peer collaboration, and ongoing support tailored to educators' needs.	
Utilizing AI in Curriculum Development	AI can address challenges in curriculum development by providing data-driven insights, personalized learning experiences, and adaptive instructional resources tailored to meet educators' and students' needs.	
Role of Policymakers	Policymakers can support AI integration by establishing clear guidelines, allocating resources, fostering collaboration, and promoting equity and ethical considerations in AI implementation.	

	Potential trends include the development of personalized learning	
Future Trends in AI	platforms, virtual teaching assistants, and augmented reality tools,	
Integration	shaping education in the digital age by revolutionizing teaching and	
	learning practices.	

Discussion of the study:

Theme 1: Implications on Teaching Practices

Zhai et al. (2021) explore how teachers' attitudes towards AI impact its effectiveness in education, highlighting that resistance or overreliance on AI can affect its integration. Challenges such as inadequate professional development or unrealistic expectations may lead to dismissing or depending too heavily on AI, potentially distracting from learning goals. The study calls for a shift in teachers' roles and new organizational structures to adapt to AI advancements.

Additionally, the survey "Artificial Intelligence for Social Good" suggests AI could evolve to assist or even replace teachers, though it does not detail specific mechanisms or outcomes. This indicates a future where AI might handle some instructional tasks, shifting teachers' roles to facilitation and supervision.

The effectiveness of AI as a teaching tool will depend on context, AI design, subject matter, and educational levels. Careful consideration is needed to ensure AI supports and enhances teaching and learning without diminishing the role of human teachers.

Influencing Factors	Key Points
AI Integration Landscape	- Dynamic and evolving scenario - Adoption of AI-powered systems in education - Functions: administrative tasks, sophisticated learning analytics (Joshi et al., 2021)
AI Utilization in Teacher Education	- Integral to tailored teaching methods and curriculum - Applications: AI tutors, analytics, simulation tools - Shift towards dynamic and adaptive education (Zhai et al., 2021)
Impact on Educational Outcomes	- Substantial impact on student engagement and achievement - Adaptive learning responding in real-time - Positive influence on retention rates (Malik et al., 2018)
Benefits of AI Integration	- Enhancement of personalized learning experiences - Creation of nuanced educational pathways - Streamlining assessment processes - In-depth insights for educators (Malik et al., 2018)

Challenges and Ethical Implications of AI	- Ethical concerns: data privacy, algorithmic bias, equity issues - Need for responsible implementation - Ensuring equitable access and addressing biases (Zhai et al., 2021)
Professional	- Essential for educators' capacity - Requires technical knowledge and
Development and AI	pedagogical competencies - Success hinges on educators' preparedness
Tools	(Joshi et al., 2021)
Insights for Stakeholders	- Strategic recommendations - Inclusive AI education policies - Promotion of ethical AI use in classrooms - Ongoing support through professional development programs (Joshi et al., 2021)

Theme 2: Curriculum Development

Joshi et al. (2021) highlight the urgent need for curricula to include AI competencies due to rapid technological advancements and changing labor market demands. They advocate for enhancing teachers' AI literacy through professional development and integrating ethical considerations into the curriculum. Zhai et al. (2021) examine AI's role in personalizing education by using adaptive learning paths to tailor content to individual student needs. They emphasize AI's potential to improve engagement and outcomes while addressing equity issues to ensure all students benefit from personalized learning.

Synthesis: Both studies emphasize the critical role of AI in education. Joshi et al. stress the need for curriculum updates to build AI skills and integrate ethical considerations, while Zhai et al. focus on AI's benefits for personalized learning and data-driven decision-making. Together, these insights underscore AI's transformative impact on education and the need for curriculum and professional development to support effective AI integration.

Theme 3: Educational Outcomes

Joshi et al. (2021) investigate how AI can enhance learning outcomes and achieve educational goals by personalizing learning experiences and improving data-driven decision-making. AI's ability to adapt content to individual learning patterns can boost comprehension and retention. The study also explores AI's potential to address educational disparities in developing countries by facilitating remote learning and providing adaptive, culturally relevant resources. Joshi et al. highlight AI's role in improving educational quality and promoting equity, particularly in underserved regions, making a case for its transformative impact on global education.

Theme 4: Benefits of AI in Education

Malik et al. (2018) explore the transformative impact of AI on personalized learning and assessment. AI enables adaptive learning environments that adjust content and delivery based on individual student needs, enhancing engagement and academic performance. AI also streamlines assessment processes by automating grading and feedback, providing real-time insights into

student progress. Additionally, intelligent tutoring systems powered by AI support the development of critical cognitive skills by offering tailored instruction and adaptive feedback. Overall, AI's integration into education promotes personalized learning, efficient assessment, and advanced skill development.

Theme 5: Challenges and Ethical Considerations

Popenici and Kerr (2017) identify key challenges in adopting AI in education, including technological constraints, insufficient teacher training, and resistance to change. Technological limitations can create disparities between institutions, while inadequate training hinders effective AI integration. Resistance from educators and institutions further complicates adoption. Addressing these issues requires a comprehensive strategy focusing on technology access, robust training programs, and fostering adaptability. **Malik et al. (2018)** highlight ethical considerations in AI adoption, such as data privacy, algorithmic bias, and overreliance on AI. Concerns include safeguarding personal data, avoiding biases in AI systems, and ensuring accountability in decision-making processes. Both studies underscore the importance of overcoming technological and ethical challenges to ensure the responsible and effective use of AI in education.

Theme 6: Equity Issues

Zhai et al. (2021) examine how AI can both bridge and widen educational disparities across socioeconomic groups. AI can narrow the gap by providing personalized learning and access to high-quality resources, particularly benefiting underserved students. However, unequal access to AI tools could exacerbate existing inequalities. Ensuring equitable distribution of AI resources is crucial to prevent further marginalization of disadvantaged students. **Joshi et al. (2021)** emphasize the need for equitable access to AI training in teacher education. Variability in AI training opportunities can perpetuate inequities among educators. They advocate for strategies to provide targeted support and integrate AI training into teacher preparation programs, aiming to support diverse student populations and reduce educational disparities.

Theme 7: Professional Development Needs

Zhai et al. (2021) stress the importance of identifying teachers' professional development needs for effective AI integration in education. Understanding teachers' current AI proficiency and their challenges is crucial for designing targeted training programs. Such programs should enhance AI literacy, pedagogical strategies, and ethical considerations in AI use. **Popenici and Kerr (2017)** highlight the need for comprehensive professional development to equip educators with the skills to use AI responsibly. They recommend interactive methods such as workshops, seminars, and peer mentoring to provide hands-on training. Additionally, professional development should address ethical issues like data privacy and algorithmic bias, ensuring teachers can integrate AI effectively and ethically into their teaching practices.

Future Recommendation:

Factors Required	Description
Current Londscope of AL in	AI technologies are increasingly integrated into
Toochor Education Programs	educational environments, though adoption varies
reacher Education Frograms	across institutions.
Litilization of AI Technologies in	AI enhances teaching practices through personalized
Toochor Education	learning paths, administrative automation, and real-
	time feedback.
	AI positively influences student engagement,
Impact on Educational Outcomes	achievement, and retention by offering tailored
	educational experiences and support.
Potential Benefits of AI	AI fosters personalized learning, reduces educators'
	administrative burden, and facilitates high-level
Integration	teaching responsibilities.
Challonges and Concerns of AI	Ethical considerations include privacy, data security,
Integration	and algorithmic bias, while equity issues relate to
Integration	access and existing disparities.
Profossional Development for	Educators require comprehensive training on both the
Effective AL Utilization	technical and pedagogical aspects of AI integration in
Effective AI Ounzation	their teaching practices.
	Education programs should prioritize professional
Insights and Recommendations	development, address ethical and equity concerns, and
	strategically implement AI tools.

CONCLUSION

The study on AI integration in teacher education reveals transformative shifts in educational practices. AI offers personalized learning experiences for students and enhances instructional support for educators. According to Malik et al. (2018), AI's ability to cater to individual student needs improves engagement and academic success. Zhai et al. (2021) emphasize that AI provides real-time feedback and personalized recommendations, optimizing teaching and streamlining administrative tasks.

Future-ready educators must develop digital competencies, including AI literacy, data analysis, and technology integration, as highlighted by Joshi et al. (2021). Professional development initiatives should address these needs, focusing on both technical skills and pedagogical strategies.

However, challenges persist, including ethical concerns related to privacy, data security, and algorithmic bias (Zhai et al., 2021). Ensuring equitable access to AI resources is critical to bridging disparities and fostering inclusive initiatives (Joshi et al., 2021). Curriculum development

must evolve to incorporate AI literacy and competencies to align with technological advancements and future workforce requirements.

Policymakers are crucial in shaping AI integration frameworks, advocating for clear guidelines, resource allocation, and ethical considerations (Zhai et al., 2021). Future trends may include personalized learning platforms and virtual teaching assistants, reflecting AI's continuous evolution in education.

Despite limitations of the systematic literature review methodology, the study provides valuable insights into the impacts of AI on teaching practices, curriculum development, educational outcomes, and professional development needs. It advocates for a comprehensive approach to AI integration, addressing challenges, fostering ethical practices, promoting equity, and prioritizing professional development. These findings are instrumental for educators, policymakers, researchers, and stakeholders navigating AI's evolving role in education.

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"The Role of Social Media in Education: Insights from Students"

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Abstract:

In recent years, the integration of social media into educational environments has become increasingly prevalent, offering new avenues for communication, collaboration, and learning. The integration of social media into educational settings has become a subject of increasing interest and debate. This study explores the perspectives of students regarding the use of social media in education. By examining students' experiences and perspectives of social media on learning, the research aims to understand how students utilize social media platforms for educational purposes and identify the perceived benefits and challenges associated with integrating social media into education. The study employs quantitative methods using questionnaire to gather and analyze data from a diverse group of students across different educational levels. Findings suggest a refined view of how social media influences student engagement, collaboration, and knowledge acquisition within educational contexts. The study concludes with implications for educators, policymakers, and researchers seeking to leverage social media effectively to enhance educational outcomes and experiences.

Keywords: Social media, Collaboration, Student's perspectives

Introduction:

Social media are interactive technologies that facilitate the creation, sharing and aggregation of content, ideas, interests, and other forms of expression through virtual communities and networks. Social media refer to new forms of media that involve interactive participation. Social media applications are online platforms that let users engage in social networking and produce and share content. It is powered by user-generated content, which includes text postings and comments, digital images and videos, and data from all online interactions. Social media facilitates the growth of online social networks by allowing users to connect their profiles with those of other people or organizations.

When referring to media, the word "social" implies that these platforms are user-focused and facilitate group interaction. Social media can therefore be understood as virtual human network facilitators or enhancers—webs of people who improve social connectedness. The most common ways that users access social media services are either desktop web apps or mobile social media services (e.g. smartphones and tablets). Users who connect with these online services build highly interactive platforms where people may share, co-create, discuss, collaborate, and edit online information that has been self-curated or created by others. These platforms can be used by individuals, communities, and organizations. In addition to promoting ideas through blogs, podcasts, films, and game websites, social media is used to create friendships, record memories, learn about and discover new things, and promote oneself.

Among the most widely used social media networks are Twitter, Facebook (together with Messenger), WeChat, Share Chat, Instagram (along with the app Threads), QZone, Weibo, VK, Tumblr, and LinkedIn, with over 100 million registered users. Other well-known websites that are occasionally referred to as social media services include Reddit, TikTok, Microsoft Teams, YouTube, Letterboxd, QQ, Quora, Telegram, WhatsApp, Signal, LINE, Snapchat, Pinterest, Viber, etc.

In order to enhance student life, educational institutions are now incorporating these advancements into their systems and depending on collective resources and procedures. Social media use in the classroom facilitates communication between parents, teachers, and students as well as between them and other educational systems and learning groups. Social media platforms provide educational institutions and students with numerous ways to enhance their teaching strategies. Educators can integrate social media plugins through various networks to facilitate sharing and communication.

Significance of the study:

In today's digitally interconnected world, the role of social media in education has evolved into a significant and multifaceted phenomenon. As technology continues to advance, social media platforms have become pervasive in almost every aspect of our lives, including education. From elementary schools to universities, educators and students alike are increasingly leveraging social media as a powerful tool for communication, collaboration, learning, and engagement.

This study aims to explore the diverse roles that social media plays in education, ranging from facilitating communication between students and teachers to providing platforms for collaborative learning and knowledge sharing. In an era where digital literacy and connectivity are paramount, understanding the role of social media in education is essential for educators, students, and policymakers alike. By harnessing the power of social media thoughtfully and responsibly, we have the opportunity to transform traditional educational paradigms, foster inclusive learning environments, and empower learners to thrive in the digital era.

Review of Related literature:

Chowdhury, E. K. (2024) explored how social media influences the academic performance of university students in Bangladesh and examined the benefits and drawbacks of its usage. The findings resulted that social media plays a crucial role in facilitating communication, information sharing and content development among university students in Bangladesh. Excessive reliance on social media can lead to dependence and hinder innovation, as students tend to excessively rely on readily available resources.

Kumar, V., & Nanda, P. (2024) assessed the relationship between informal digital learning and formal education settings, with social media interventions. Applications of popular social media platforms have been explored in both formal and informal learning environments.

Basil C.E. Oguguo et.al (2020) This study determined the influence of using social media on the academic achievement of senior secondary school students. There was no significant influence of frequency of social media use by students on their mean academic achievements in accounting; however, gender of students was found to have a significant influence on students' mean academic achievement in accounting.

Research Methodology:

This study employs quantitative research methodology. Students from different Hyderabad based educational institutions were included in the study. A sample size of 100 students were selected for the study. The study employed Simple Random Sampling method to select its respondents.

Data Collection and Analysis:

To collect data survey was conducted. Students were given survey to complete in order to learn more about their knowledge, perspective, and experiences about usage of social media in education.

Based on the questionnaire given to the sample. The obtained results are analysed using percentage analysis and Graphical representation through Pie Chart. The responses of few questions are discussed below.

1Q) I stay up to date with latest trends and news with the help of social media.





Interpretation: From the following graph nearly 82.6% of students agreed that they stay updated with latest trends and news with the help of social media. Students follow many social media platforms, pages and groups that keeps them updated with latest news and trends around the globe.

2Q) Using social media in education improves students' digital literacy skills



Fig.2 Graphical representation on using social media to improve digital literacy among students.

Interpretation: Its evident from the above graphical representation that nearly 85% students believe that usage of social media in education helps them improve their digital literacy skills. Students acquire new information and digital skills through various social media platforms.

3Q) Social media promotes informal learning and knowledge sharing among students.





Interpretation: The above graph shows that about 88.4% students strongly think that social media promotes informal learning as, social media facilitates the formation of online communities where students with similar interests or studying the same subjects can come together to discuss topics, ask questions, and share resources. These communities create a conducive environment for informal learning and knowledge exchange.

4Q) Social media platforms provide valuable resources and information for academic purposes.



Fig.4 Graphical representation on accessing information on social media for academic purpose.

Interpretation: Social media platforms are rich sources of educational content. Individuals, organizations, and educational institutions share articles, blog posts, videos, podcasts, and infographics on academic subjects across platforms like Facebook, Twitter, LinkedIn, and

YouTube. Students follow relevant pages and accounts to access informative content related to their areas of study.

Major Findings:

This study reveals several key insights of students about using social media in education.

- Enhanced Communication and Collaboration: Students recognize social media as a powerful tool for communication and collaboration both within and outside the classroom. Platforms like Facebook, WhatsApp, and Slack facilitate easy communication among peers, enabling them to discuss coursework, share resources, and collaborate on projects remotely.
- Informal Learning Opportunities: Social media platforms provide students with informal learning opportunities beyond the traditional classroom setting. Students engage in peer-to-peer learning through online forums, discussion groups, and social networking sites, where they share knowledge, exchange ideas, and seek help with academic topics.
- Access to Educational Resources: Students value social media as a source of educational resources and information. They use platforms like YouTube, Twitter, and LinkedIn to access educational videos, articles, tutorials, and academic papers shared by educators, experts, and institutions.
- Professional Networking and Career Development: Social media plays a significant role in students' professional networking and career development. Platforms like LinkedIn enable students to connect with professionals, alumni, and potential employers, expanding their professional network and exploring internship and job opportunities.
- Support for Learning Challenges: Students perceive social media as a valuable support system for overcoming learning challenges. They use platforms like Reddit, Quora, and online forums to ask questions, seek clarification, and receive help with difficult concepts from peers and educators.
- Engagement and Motivation: social media enhances student engagement and motivation by making learning more interactive, personalized, and enjoyable.
- Awareness of Current Events and Trends: Social media platforms keep students informed about current events, trends, and developments in their field of study. Students follow relevant accounts, pages, and hashtags on platforms like Twitter and Instagram to stay updated on industry news, research findings, and emerging topics.

Discussions:

Social media serves as a powerful tool for promoting informal and knowledge sharing among students, fostering collaboration, engagement, and lifelong learning beyond the confines of the traditional classroom. It support various forms of media, including text, images, videos, and links. Students can leverage these features to share educational content such as articles, tutorials, infographics, and educational videos, making learning more engaging and interactive. Platforms like Facebook, Twitter, and WhatsApp enable real-time communication, allowing students to quickly share ideas, insights, and information with their peers. This instant communication fosters collaborative learning and problem-solving.

Conclusion:

The role of social media in education is multifaceted and continually evolving, as evidenced by insights from students. From informal peer-to-peer learning to professional networking and career development opportunities, social media offers a myriad of benefits for students navigating their academic journey. However, the role of teachers, educators, researchers and policymakers is also crucial in promoting the usage of social media in education for effective learning among students. Teachers can incorporate social media into lesson plans and educational activities to enhance student engagement and learning outcomes. Researchers and Policy makers can support research initiatives and evaluations to assess the impact of social media usage on student learning outcomes, engagement, and well-being. By gathering evidence-based insights, policy makers can make informed decisions about the integration of social media into educational policies and practices.

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Emerging Issues in Research in English Literature

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ABSTRACT

As the pre - Socratic Greek philosopher Heraclitus observed, "There is nothing permanent except change". Change is the inevitable law of nature and emerging issues can be seen as proclivity for change. This paper is a specimen of meta-research as it researches on research issues itself. Meta-research is a recent field of research that investigates research practices with the ultimate goal of finding evidence-based improvements. The word research is derived from the Middle French "recherché", which means "to go about seeking". For this investigation, I have tried to compare and analyse the catalogues of proposed researches in the subject of English Literature in prominent Indian universities. The issues include - the investigation of voices which have not been identified yet or suppressed especially in regional/vernacular languages; in popular literature of culture, there is an issue of representing voice of women, which has been stifled till now.

Key words: Meta-Research, Suppressed/Repressed Voices in Regional Narratives, Self And Nation, Critical Studies, Post Modernism, Diaspora.

INTRODUCTION

The dictionary definition of an issue is "an important topic or problem for debate or discussion." More formally, issues are matters that attract attention or invite concern of majority. Each age has its own characteristics revealing that particular period and its literature and hence literature of each age has its own issues. The Renaissance age is known for the origin of intellectual liberty. The 18th century literature or neoclassical age demanded that poetry should follow exact rules discovered in the classics Of Horace, Virgil and Ovid. The Age of romanticism verbalised love for nature in different ways. Victorian age was an era of transition and the advent of first world war brought loss of faith in traditional ethics and morals. It is difficult to define any typical characteristics of 21st century. This age is full of experimentation. Some radical philosophical idea(s) along with a great historical event determine a movement in literature and thus an issue. According to Charles Graybell, Professor of English Literature the issues are "Disability Studies, Ecocriticism, Trauma Studies, Animal Studies, Postcolonial, Native American. Discovering new historical contexts ". Though it is very difficult to trace an issue in literature, which opens choice anywhere under the sun from gender, comparisons, historical background to politics, and religion. The given themes and issues are not mutually exclusive. One topic involves and sometimes is the cause or consequence of the other.

1.GENDER:-

Gender is a psycho- social construct as opposed to anatomical or biological construct. Contemporary researches tend to explore how are men and women portrayed in narratives? What role do they play owing to expectations of the present social setup? They seek to bring out suppression on the basis of gender in patriarchal hegemony. The silences or lacunae in narratives are explored to portray parallel narrative of the suppressed. Another aspect that can be grouped under this heading is research from point of view of queer theory which investigates cross-dressing, bisexuality and trans-sexuality from society's normative model of sexual identity, orientation, and activities. Example of researches currently pursued are titled as – "Christopher Isherwood's Autobiographical Experiments: Narrating the Queer Self", "The Satirical Representations of Bengali Women in Nineteenth Century Colonial Bengal and Their Context ", "Colonialism: Masculinity and The Literature of the Hunt", Re-creating the Self:", "Tracing the

Growth of Women's Education in Colonial India: A Select Study of Memoirs" "Depiction of Patriarchal Victimization in Select Victorian Novels", And "The ideology of gender in the Kathasaritsagara and the Arabian nights".

Subjugation is of many forms . Probing has been done into violent protests but an emerging issue is towards women's dilemma in family structure where families are structured to suppress women like in Rama Mehta's "Inside The Haveli" and Manju Kapoor's "Difficult Daughters" and "Home" and "A Married Woman". How female protagonists like Virmati and Aastha are made martyrs by the greedy families ;greedy in terms of power and control over the woman. So researches focus on two dimensions:-

(i) Psychological Probing – which gives more importance to internal psychological milieu of a man like in Desai's "Cry the Peacock".

(ii) Social Dynamics Of Perpetuating Equity-Social Engineering- there is an issue for some decades to explore suppressed voices . there is an adequate commentary on social external tapestry in novels "God Of Small Things" by Arundhati Roy and in "Untouchables" by Mulk Raj Anand. Roy deciphers secretive history of colonised India .These researches investigate texts which are based on discrimination of one man over another in any form be it based on caste, class or religion eg.-Mahesh Dattani's "Final Solutions". Example of research currently pursued is titled as "The Absent Voices: A Study of the Representation of Women and Secular Themes in Pre-Christian and Post- Christian Paite Narratives".

2.POST-MODERNISTIC ISSUES –

Modernism became a blanket term for different cutting -edge tendencies across different parts of the world like futurism, dadaism, vorticism. Modernism implies a break from what was already there. This movement reflects an attitude that looks ahead, creates new ways of thinking and writing (form and content). Modernists rejected artistic precursors. The major historical event driving post modernism is second world war. Western thought had been dominated by the Greek philosophers who established that reason and logic could lead to absolute truth. Post modernism denies absolutism and inclines towards relativism. As Jean Francois Lyotard says in his book "The Post Modern Condition : A Report on Knowledge" (1979) , " Truth is neither absolute nor self – contained". Now people ,instead of questioning "what is the truth?", question "what is the use?"

Therefore there is dominance of technology, applied sciences and not the basic sciences. Baudrillard while propounding the concept of 'simulation' establishes that there is no way to know the reality except electronic media. Foucault in "History of Sexuality" says that gender or sex is not an absolute natural phenomenon but is rather different across cultures, ages, etc. So, universality, essentiality and naturalness on which depended the humanism of the Renaissance is now lost in postmodernist times. Post modernism includes analysis from points of view of new historicism, eco criticism. This theory advocates that meaning or aesthetics are subject to various factors and change according to them viz. readers, social context, culture, politicoeconomic environment etc. where as modernism seconded ultimate formulae and ideals for art. Sociohistorical contexts and their relationship with a literary work gets central focus in post modern thinking. It is believed that a work of art is the product of social forces which shape our sensibilities. Eg: "Exploring Post-Modern Issues in the Selected Novels of Rohinton Mistry" .Multicultural and multi-ethnic contexts offer rich possibilities of derivation of material for creation of literature and research thereinto.

3. DIASPORA-

Defined as the dispersion or spread of people from their original homeland, this literature deals with the feelings of isolation, difficulty in adjustment, discrimination and segregation they face in the land where they have migrated because they have not yet been assimilated into the culture of the land where they have settled. Not only the migrating generation but their children also have to bear this brunt. Where in Europe a Polish man like Joseph Conrad can easily assimilate into British culture, there it is difficult for an American poet, Pearl S. Buck, to adjust in Sino culture. This problem has begun since people have started migrating overseas. At a time when Gandhiji returned from England there was no one except his elder brother to receive him because of the taboos of 'jaat',' malichh' etc. Ethnic dialectical study is its sub-field. The inflow of Diaspora writings also provides a variegated picture of resistance. A major body of fictions comes from Bharati Mukherjee and Chitra Divakaruni Banerjee along with Randhwa, Shona Ramaya, Jhumpa Lahiri and others. These diaspora writers are more exposed to influences of resistance and have more space to interact. Dimple in "Wife" by Bharati Mukherjee resists being hyphenated American. Jasmine in "Jasmine" resists her native culture at every step and with every bold assertion. Divakaruni, Randhwa and many others offer resistance to their otherisation as diaspora subjects. In the host country they, being the Indians, are the "other".

4.GLOBALISATION COTERMINUS WITH LOCALISATION -

There have been present both centrifugal and centripetal tendencies in recent discourse. It is evident as many vernacular literatures are getting translated into lingua franca English and vice versa. In the 'global village' (as coined by Marshall Mcluhan), there are issues in terms of bringing to prominence the study of local groups or groups within that global village. Both contradictory forces are working simultaneously in post modern world. Globalisation implies there is unipolar world with one centre of power. That centre labels its worldview as new liberalism which is basically capitalism advocating not political interference or restraint but political facilitation to optimum individual prosperity. John Barth in his essay "the Literature of Exhaustion " (which is sometimes considered the manifesto of postmodernism) points out that why contemporary novel is parodic ? A core trait of postmodernism is that the forms developed by past authors and their roles cannot be surpassed and conventional modes of literary representation have been "used up", their possibilities consumed through overuse. Another essay of John Barth "Cheerful Nihilism" proposes 'laugh it away' attitude towards absurdity. Life is contingent on day to day basis, we live minute to minute ad hoc. There isn't a moral purpose of this world but simply 'struggle for existence' and 'survival of the fittest'. So there is a dichotomy in looking for the moral purpose, a meaning (as exemplified in "Waiting for Godot") which does not exist.

An issue which has arrested attention is the unconventionality of literature that the author instead of living among people and sharing life with them, focuses on autobiographically journalistic (rather than creative)history in his narrative with a non-linear notion of time panning out genres like magic realism. He is an isolated individual from the context like many authors, who are not living in India, are writing about India . For instance:- * Arvind Adiga ; a historical event is re narrated in terms of the experience and viewpoint of the the author in autobiographical tones in Salim Sinai's experience of partition of India in Salman Rushdie 's "Midnight's Children". There is a power play in who gets to be translated (without translation Tagore would never have got his Nobel Prize); globalisation means that there is an increasing market for writers from everywhere, but only those who find a translator will get multiplied sales and international attention. And it may be that only the works closest to dominant cultural taste will be selected for translation, and genuine regional voices remain marginalised. This is why it is increasingly desirable for the postcolonial scholar to be multilingual, and for the regional writer (like Ngugi Wa Thiango of Kenya) to persist in local production but push for national and global reach via translation.

The issue of bringing to the centre which was once at periphery is exemplified in creating narratives of minor characters in canonical works viz. Tom Stoppard's absurd play "Rosencratz and Guildenstern are Dead". Eg. of researches being pursued in this direction:- "Socio-Cultural Impact of Globalization: A Select Study of Shashi Tharoor, Amitav Ghosh, Kiran Desai and Aravind Adiga".

5.RESISTANCE LITERATURE-

Another issue emerging is resistance. Wherever coercion is there, there may be violence and trauma studies like "Nation, Nationality and Resistance Literature:Reading the Contemporary Literary Texts from Kashmir,North-east and DalitCommunities", "The New Normal': Trauma, Biopolitics and Visuality after 9/11". This term was coined by Barbara Harlow.By its semantic nature,the term "resistance" is a derivative of "resist" which is derived from the Old French "resister" and the Latin "resistere", from re-'expressing opposition' and sister'stop'. According to Oxford Advanced Learner's Dictionary , resistance is refusal to obey. According to Haynes and Prakash, "Resistance should be defined as those behaviours by subordinate groups that contest hegemonic social formations and threaten to unravel the strategies of domination".

It is different from protest revolution. It may take different forms ranging from civil disobedience to individual statements to mass movements or even silence . Resistance arises when there are two classes: the dominating and the dominated or the subjugated . Thus power play engenders interplay between domination and resistance. Social reforms like social reformist movement in nineteenth century and nationalist movement in 20th century reflect simmering voices of resistance. Dalit writing which primarily emerged in Maharashtra in 1960's is a much exploited area of research in contemporary research scenario. It is not necessary to be informed about ideology. Eg of researches being pursued in this direction;- "Dalit Lives and Tidal Landscapes: A Symbiotic Relationship explored through fictions based in Bengal", "Anti-Establishment Literature: The Dalit Panthers and Naxalbari movement"," A Memory of Musk, the Rebel Face of Hope:Exile, Memory and Resistance in Agha Sahid", "Dalit Discourse in Modern Indian Literature: Reading the Dalit Novel as Counter- Discourse", "Self and Society: A Study of Hindi Dalit Autobiographies"," Dalits and the New Media: Rewriting Caste and Gender".

Thus major fields in Indian context is research on partition literature circumferencing works like "Train to Pakistan" by Khushwant Singh, "Ice Candy Man" by Bapsi Sidhwa, "Pinjar" by Amrita Pritam, "The Shadow Lines" (Amitav Ghosh), "Sunlight On A Broken Coloumn" (Attia Hosain), ""Basti" (Intezar Husain), "Toba Tek Singh" (Saadat Hasan Manto), "Tamas" (Bhisham Sahni), "Midnights Children" by Salman Rushdie.

6.POST COLONIAL DISCOURSE-

It can be grouped under resistance, but this field is so vast that it is convinient to take it separately . It acknowledges two sections or power groups that of the coloniser and the colonised. This movement gained popularity in 80's, the research is made not only on contemporary but classisc texts (like "The Tempest", Shakespeare) as well . It is an ambivalent ideology having contrasting love and hate- love for the native culture and heritage with the hate for the coloniser's imposed code and centuries of oppression and suppression. As the pioneer of this school, Edward Saith , observes, "east is the passive reacter while west is the actor ; west mythicizes, exoticizes the east but east is denuded of its cultural identity".

This consciousness aims at restoration of the glory of colonised's culture by rejecting and overthrowing image of colonised formulated by colonisers. Prominent texts and authors explored are "Things Fall Apart" and "Anthills Of Savannah" (Chinua Achebe), "Troubles" (Jg Farell), Rudyard Kipling, Joseph Conrad. Eg:- " Reading the American Imperium in Salman Rushdie's the Ground Beneath Her Feet (1999), Fury(2001), Shalimar the Clown(2005) and theEnchantress of Florence(2008)" "Re-membering J.M. Coetzee, Present Hope andPostcolonial Futures". Concept of nation, identity and self become relevant issues. Eg:-"Collective Experience: Individual, Family & Community in the Works of Bhikhari Thakur".

7.INDIAN AESTHETIC THEORIES TO WESTERN WORKS :

Wealth of literay philosophies of India have been forgotten . There is an issue to study western works from Indian aesthetic theories like rassiddhanta of Natya Shastra. Shakespeare, Spencer and Keats have been better understood from rasa analysis. Critical-aesthetic theories originated in West by literary critics like Coleridge , Matthew Arnold, F. R. Leavis, etc were found inadequate as compared to Indian theories. A much studied author from this viewpoint is T.S. Eliot . Writer- critic C.D. Narsimaiah, founder of Dhvanyalok Centre For Indian Studies , has worked much in this field. Another linguist is Kapil Kapoor who has significant remarkable contribution in this field .

8. FEMINISM AND AFRO AMERICAN STUDIES:

This is a theory emerged in west and well assimilated in Indian culture unlike 'queer theory'. Many educated women returned from abroad to India to raise voice for their rights and against their suppression. Newspaper coloumns and streetside bookstalls are enough to show the flood of women writers that have emerged on contemporary literary scenario breaking the conventional moulds. Example - Manju Kapoor in "A Married Woman" and Suniti Namjoshi are such authors who explore lesbianism. Literature does not concern itself with events but human material. Be it any event, what were the repercussions on human existence, feelings and emotion-that is the subject area of literature and so this is a enigma of tripple oppression on the basis of gender, race and color. Major authors researched are Toni Morrison, Alice Walker, Harriet Beecher Stowe, Maya Angelou, Eg. of researches being pursued in this direction – "Re-creating the Self: Representations of Black Female Body in Black Women Artists' Visual Arena: Feminism and Indian Cinema".

9. AMBIVALENCE TOWARDS SCIENCE AND TECHNOLOGY -

Ambivalence is the presence of contrasting emotions at the same time towards same object. Science and technology are viewed both optimistically and pessimistically. Dystopias like A Brave New World (Aldous Huxley), 1984 (George Orwell), Atwood's Handmaid's Tale, Burgess' A Clockwork Orange, fiction of Liu Cixin express anxieties about future of technology driven world . Both writers and readers are becoming much more sophisticated—writers in terms of concept and tone, and readers in terms of their understanding of what the genre entails. As a result, there exists this cycle in which the writers are challenging readers' preconceived notions of "science fiction".

The major emerging sub-genres are as follows ;

(i)Science fiction subgenre of space opera is gaining popularity partly due to the success of the Star Trek and Star Wars franchises .It involved large-scale, fast-paced science fiction adventure featuring space warfare, alien races and intelligent machines. Often it had a military aspect to it, although the main character focus was on civilians. It's also usually more scientifically rigorous, more literary, has more emphasis on character development, and addresses social issues of race, gender, class and postcolonialism.

(ii) Climate Fiction, that is, fiction that deals with climate change, often in a post-apocalyptic or dystopian future. Australian author George Turner wrote the quintessential cli-fi novel well before it was a recognised subgenre of science fiction. His The Sea and Summer (The Drowning Towers in the US) was set in a world where global warming had resulted in a Melbourne landscape that was largely underwater.

(iii) Generation Ship Fiction focuses on sub-lightspeed starships that take several human generations to arrive at their destination, where the original occupants grow old and die, leaving their descendants to continue travelling. Unlike works relying on faster-than-light (FTL) travel, this subgenre is based on the more rigorous extrapolation of current science where FTL speed is impossible. The closed environment of a generation ship has proven to be a particularly versatile story vehicle, allowing powerful explorations, ranging from sustainability-based dilemmas and breakdowns in social structures to murder mysteries. Recent examples include Aurora by Kim Stanley Robinson, Neal Stephenson's SevenEves, and Six Wakes by Mur Lafferty, a 2018 Hugo Best Novel Finalist.

(iv)Gender-focused Science Fiction works deal with gender identity and involve depictions of single gender or genderless societies.

Because of the political and economic domination of the west by western science fiction writers, most science-fiction readers knew little about other societies; this is now beginning to change. With the economic and political rise of China, there are now Chinese authors who are writing science fiction which is set with Chinese society and culture as background.

Notable works are:

• Folding Beijing

• The Three-Body Problem

10.EXISTENTIALIST VIEWING OF TEXTS-

Existentialism as a philosophy talks about this world, not the other world. Individual interacts with his palpable reality, his immediate reality, the social structures of which he is a part and it is his responsibility in the decision which he takes by exercise of freedom of will. ("man is condemned to be free", Sartre). This entails a heightened awareness of self and the absurdity of existence. (Sartre 's quote "existence precedes essence", implying that human beings—through their consciousness —create their own values and determine a meaning for their life because the human being does not possess any inherent identity or value. That identity or value must be created by the individual. By posing the acts that constitute them, they make their existence more significant.) In existentialism, a kind of power is vested in the individual through choice and he commits himself to action in contrast to abstraction and fragmentation put forth by modernism . Modernism proposed that the individual is not able to connect ,even react, to his objective reality. The individual wallows in aloofness cut-off from the world. The reality that modernism privileged is interiority, circularity which leads him nowhere in constructive engagement with society.

11.NON FICTIONAL META NARRATIVE -

Way back in 1949, Rene Wellek raised a question that still keeps haunting us. "Is it possible to write literary history, that is, to write that which will be both literary and a history? Language, literature, and nation form a colluding triad. But with the advent of Foucauldian theories regarding the operation of power structures, and more recently with the foundational work of Homi Bhabha (Nation and Narration and The Location of Culture), followed by the recent writings of Sheldon Pollock and Aijaz Ahmad, the term has grown more inclusive to mean. what has been grandiosely

called "nonfictional meta-narrative" that attempts to redefine the history of a nation state using literature as one — if not the only — frame of reference.

12.WORLD LITERATURE-

The term emerges in 19th century when the world is beginning to be seen as an "entity ", when the writers become conscious of the same problems experienced elsewhere than the place where they live and think that the issues are not just confined to their space. Neither Shakespeare nor the Greeks could be termed as writers of world literature because the notion of world as it is today was not there then. An associated conceptual issue is Transculturism . Defined as "seeing oneself in the other". transcultural is in turn described as "extending through all human cultures" or "involving, encompassing, or combining elements of more than one culture".

According to Richard Slimbach, author of The Transcultural Journey, transculturalism is rooted in the pursuit to define shared interests and common values across cultural and national borders. Slimbach further stated that transculturalism can be tested by means of thinking "outside the box of one's motherland" and by "seeing many sides of every question without abandoning conviction, and allowing for a chameleon sense of self without losing one's cultural center".

Conclusion

In conclusion, as Heraclitus wisely observed, change is the only constant, and this principle applies seamlessly to the evolving landscape of research in English Literature. This paper, as a meta-research endeavor, sheds light on the shifting paradigms of literary inquiry and underscores the importance of introspection within research practices. By exploring the catalogues of proposed research in Indian universities, this investigation identifies crucial gaps and emerging concerns, particularly the need to amplify marginalized voices—whether in regional vernaculars or in the broader cultural context of women's representation in popular literature. Such reflections not only

highlight the transformative potential of research but also emphasize the dynamic interplay between societal changes and academic inquiry. As the field of meta-research grows, it will continue to offer vital tools for refining research methodologies and addressing the ever-evolving challenges of literature and culture studies. In the spirit of seeking and questioning, research itself must remain adaptive, inclusive, and attuned to the nuanced demands of the present and the future.

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An Empirical Analysis of Future Indian Education System and Stakeholder Engagement in NEP 2020

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Abstract

With a long history that dates back thousands of years, the Indian educational system is known for its scholarly and studying traditions. India has a long history of education, dating back to the Gurukula system's glory. Many upgrades and modifications have been accepted, implemented, or amended in the education system, ranging from the Gurukul system to the British-influenced education system. A comprehensive strategy for the reform of the Indian education system is outlined in the historic National Education Policy (NEP) 2020. The purpose of this empirical study is to evaluate how NEP 2020 will affect the Indian education system going forward and what it will mean for different stakeholders. This study examines how educators, students, parents, and policymakers perceive NEP 2020. It was conducted using interviews, questionnaires, and content analysis. The results offer light on the policy's ability to transform education in India by highlighting its advantages, disadvantages, and possible consequences.

Keywords: National Education Policy 2020, Indian education system, stakeholders, empirical study

Introduction:

The Indian education system has a rich history dating back thousands of years, characterized by a tradition of learning and scholarship. From ancient centers of learning such as Takshashila and Nalanda to the modern-day institutions, education has played a pivotal role in shaping India's cultural, social, and economic fabric. India's educational heritage traces back to ancient times, where the Gurukula system prevailed. Under this system, students lived with their gurus (teachers) in an ashram-like setting, imbibing knowledge through oral teachings, discussions, and experiential learning. This period saw the flourishing of diverse fields such as mathematics, astronomy, medicine, literature, and philosophy. During the British colonial era, the Indian education system underwent significant transformation. The British introduced a western-style education system aimed at producing clerks and administrators to serve the colonial administration. Institutions like the Calcutta Madrasa (established in 1781) and the Wood's Dispatch of 1854 marked key milestones in the formalization of education in India. After gaining independence in 1947, India embarked on a journey to revitalize and expand its education system. The government launched various initiatives to promote literacy, establish schools and colleges, and democratize access to education. The adoption of the Indian Constitution in 1950 enshrined the importance of education as a fundamental right and a tool for social justice and equity The

Indian education system is structured into different levels, including primary education (classes 1-8), secondary education (classes 9-12), and higher education. Primary and secondary education is typically provided by schools affiliated with various boards such as the Central Board of Secondary Education (CBSE), Council for the Indian School Certificate Examinations (CISCE), and state boards. Higher education encompasses undergraduate and postgraduate programs offered by universities, colleges, and specialized institutions. Despite significant progress, the Indian education system faces various challenges such as disparities in access, quality concerns, high dropout rates, and the need to align education with the demands of the 21st century. In response, the government has introduced several reform initiatives, including the National Education Policy (NEP) 2020, aimed at transforming the education landscape by promoting holistic development, flexibility, and inclusivity.

India's approach to education has undergone a paradigm shift with the National Education Policy 2020. This empirical study looks into how the policy would affect stakeholders including parents, teachers, students, and policymakers as well as how it will affect the future of the Indian educational system. The goal of this research is to provide a thorough knowledge of the advantages, disadvantages, and possible results of NEP 2020 by looking at the perspectives of stakeholders. The current educational system has been in place for the past 34 years, and in 2020, once NEP 2020 was supplemented in the years to come, a fresh, drastic change became visible. Many upgrades and modifications have been accepted, implemented, or amended in the education system, ranging from the Gurukul system to the British-influenced education system.

Many of us are currently using the system that will soon be replaced. Among the many notable changes that could have some anticipated positive effects are the replacement of the outdated 10 + 2 system with the 5 + 3 + 3 + 4 system, and the elimination of the Arts, Science, and Commerce stream system, which allows students to select any available combination of subjects. The nation's educational system should produce future-ready and talented learners who can succeed both personally and as a community in the future, enabling the country to become a prosperous and developed one in every way. Removing topic stream borders and granting students the freedom to choose what they want to learn and thrive in that area is expected. The Indian education system is made up of several different entities, such as government-run education provider institutes. in addition to parents, students, instructors, and private.

Review of Related Literature

Aithal & Aithal (2020), examined the efficiency of the new education policy 2020 in accomplishing the goals. The research emphasized the key points of the National Education Policy 2020 and conducted a comparative analysis with the current policy to identify the shortcomings of the current policy and the future trends that the new policy 2020 will bring about. Major recommendations for the execution of the new education strategy 2020 were also given by the study to the educational departments

Jha & Parvati (2020), reviewed the modifications made by the Ministry of Education from the previous three educational policies and criticized the elements that support the sector's overall development. The focus of the study was on the adjustments that colleges, universities, and other educational institutions needed to make in order to successfully execute National Education Policy 2020.

Sha (2020), emphasised in the NEP 2020. The study focused on every aspect of the education industry and how it affects the economy. The study focused mostly on the national education policy, including everything from the prime minister's announcement to the different obstacles educational institutions would have to overcome in order to implement changes to their working environments in accordance with the National Education Policy 2020.

Methodology:

This study is empirical and employs both qualitative and quantitative research methodologies. A wide range of educators, students, parents, and policymakers from various parts of India were gathered. The stakeholders of several Hyderabad-based educational institutions are included in the study. A sample size of one hundred respondents from Hyderabad is used in the study. The study employed purposive sampling as a method to choose its respondents.

Data Collection and Analysis:

To collect data, content analysis, interviews, and surveys were used. Stakeholders were given surveys to complete in order to learn more about their knowledge, opinions, and expectations about NEP 2020. To learn more about the experiences and insights of the participants, interviews were done. Policy documents, instructional materials, and media coverage of NEP 2020 were examined using content analysis.

Based on the questionnaires and interviews given to the sample. The obtained results are analysed using percentage analysis and Graphical representation through Pie Chart. The responses of few questions are discussed below.

Q1. How do you think NEP 2020 will affect the Indian Education System in schools and higher education institutions?

Graphical representation on the Impact of NEP 2020 on Indian Education System



Interpretation:

From the above graphical representation it is evident that 58% of subjects believe NEP 2020 will significantly impact the Indian Education System, advocating for a flexible curriculum, multidisciplinary approach, and personalized learning experiences. This shift from rigid subject streams promotes interdisciplinary learning, enabling students to apply knowledge in practical contexts.

Q2. What role do you think the government should play in implementing NEP 2020 effectively? Graphical representation on the Implementation of NEP 2020 on Indian Education System



Interpretation:

From the above graphical representation it is evident that 36% of the subjects believe that resource allocation plays a major role in implementing NEP 2020 policy therefore the government should provide adequate funding, ensuring effective implementation mechanisms, promoting collaboration with stakeholders, monitoring progress, and facilitating reforms in the education system to align with the objectives of the policy. Government should also prioritize equitable access to education, quality enhancement, teacher training and infrastructure development to ensure the success of NEP 2020.

Q3. What is the role of teachers in adapting to the changes introduced by NEP 2020 and fostering holistic development among students?

Graphical representation on the Role of teachers in adapting to the changes introduced by NEP 2020



Interpretation:

From the above graphical representation, it is clearly evident that 52% of subjects believe teachers play a crucial role in adapting to NEP 2020 changes and promoting holistic student development. They implement innovative teaching methods, foster critical thinking, and create inclusive

classrooms. Teachers contribute significantly to the National Education Policy and influence the future of education.

Q4. What challenges do you foresee in the successful implementation of NEP 2020 in India?

Graphical Representation of Challenges foreseen in the successful implementation of NEP 2020



Interpretation:

The implementation of NEP 2020 in India faces challenges such as resistance to change, insufficient funding, infrastructure issues, socio-cultural barriers, resource restrictions, and teacher training. Despite these obstacles, the NEP offers opportunities for improved education, including a multidisciplinary approach, early childhood education, vocational training, digital learning, teacher professional development, and education research.

Major Findings:

The empirical findings reveal several key insights into the effects of NEP 2020 on the Indian education system and stakeholders:

- Perceived Benefits: Stakeholders perceive NEP 2020 as a transformative step towards holistic and flexible education. The policy's emphasis on multidisciplinary learning, skill development, and flexibility is well-received.
- Challenges: Stakeholders express concerns about the effective implementation of NEP 2020. Infrastructure gaps, curriculum changes, and teacher training emerge as key challenges that need to be addressed.
- Student-Centric Approach: Stakeholders appreciate the policy's focus on student-centric education, which aims to nurture critical thinking, creativity, and practical skills.
- Technology Integration: NEP 2020's emphasis on technology integration is viewed positively by stakeholders, although there are concerns about digital access and equity.
- Assessment Reforms: Stakeholders welcome the shift towards competency-based assessment and reduced emphasis on rote memorization.
- Curriculum Reforms: Flexibility in curriculum design to promote creativity, critical thinking, and practical skills.

- Teacher Training: Emphasis on continuous professional development to enhance teaching quality and effectiveness.
- Assessment Reforms: Shift towards holistic assessment methods focusing on conceptual understanding and skill development rather than rote memorization.
- Multilingualism: Promotion of multilingualism to preserve linguistic diversity and facilitate better learning outcomes.
- Higher Education: Integration of vocational education, research, and innovation to foster a culture of academic excellence and entrepreneurship.
- Government: Formulation and implementation of policies, allocation of resources, and monitoring progress.
- Educational Institutions: Adapting to new curricular frameworks, upgrading infrastructure, and aligning teaching methods with NEP objectives.
- Teachers: Training and upskilling to effectively implement pedagogical changes, fostering a conducive learning environment.
- Students: Embracing the opportunities for holistic development and active participation in shaping their learning experiences.
- Parents: Supportive role in encouraging children's educational pursuits, understanding the importance of holistic education beyond academics.
- Infrastructure and Resources: Adequate funding and infrastructure required for effective implementation.
- Capacity Building: Training a large number of teachers and educational administrators to adapt to the new system.
- Socio-cultural Factors: Addressing societal attitudes towards education, especially regarding vocational and liberal arts education.
- Digital Divide: Ensuring equitable access to technology and digital resources for all students.
- Assessment and Evaluation: Developing reliable and fair assessment methods aligned with the competency-based approach.

Discussion:

The National Education Policy (NEP) 2020 is a significant step in India's transformation of its education system to meet the demands of the 21st century. The policy aims to be more inclusive, flexible, and aligned with global standards, emphasizing holistic development, multidisciplinary learning, and skill enhancement. It advocates for competency-based education, focusing on critical thinking, creativity, and practical skills. The policy also emphasizes holistic assessment, reducing exam pressure and promoting deeper understanding of concepts. The future Indian education system will leverage technology to enhance learning experiences and facilitate personalized learning. Stakeholders, including schools, colleges, and universities, must adapt their curricula, teaching methods, and infrastructure to align with the policy's objectives. Teachers will need training, professional development, and support to adopt innovative teaching practices and

integrate technology. Students and parents are essential stakeholders who must embrace the changes and collaborate with educational institutions to ensure positive outcomes.

Conclusion:

The Indian education system reflects a dynamic blend of ancient wisdom, colonial legacies, and contemporary aspirations. As India marches towards becoming a global knowledge powerhouse, efforts to enhance access, improve quality, and foster innovation are essential for realizing the full potential of its vast human capital. The National Education Policy 2020 has generated considerable interest and discussion among stakeholders in the Indian education system. This empirical study provides valuable insights into stakeholders' perceptions, revealing both opportunities and challenges associated with the policy's implementation. As India embarks on this transformative journey, continued collaboration among educators, policymakers, students, and parents is essential to realize the full potential of NEP 2020 and shape the future of education in the country.

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Unveiling Indian Knowledge Systems through Philosophy, Mythology, and Culture Dr. K. Sindhu Bhavani¹

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Abstract

India's rich cultural heritage is intricately woven with its diverse knowledge systems, encompassing philosophy, mythology, and cultural traditions. Throughout history, Indian art has emerged as a vibrant fusion of indigenous practices, external influences, and local innovations, resulting in a multifaceted tapestry of creative expression. This research article explores Indian knowledge systems through the lens of art, revealing how visual representations convey philosophical ideas, mythological stories, and cultural subtleties. By examining the evolution of Indian art across various periods and regions, this study seeks to uncover the deep connections between artistic forms and the philosophical foundations, mythological motifs, and cultural values that shape Indian society.

Keywords: Indian knowledge systems, art, philosophy, mythology, culture, symbolism

Introduction:

India's cultural tapestry is woven with intricate threads of philosophy, mythology, and cultural practices, which have been preserved and transmitted through various artistic forms over millennia. From the ancient cave paintings of Bhimbetka to the intricate sculptures of Khajuraho, and from the vibrant murals of Ajanta to the classical dance forms of Bharatanatyam and Kathak, art in India serves as a repository of profound wisdom, timeless myths, and cultural traditions. This research article embarks on a visual journey to explore how art in India reflects and transmits the diverse knowledge systems that have shaped its civilization.

Evolution of Indian Art:

The history of Indian art spans thousands of years and encompasses a wide range of styles, techniques, and mediums. From the prehistoric rock art found in various regions to the sophisticated sculptures of the Gupta period, Indian art has evolved in response to changing sociocultural, religious, and political contexts. Each period in Indian art history reflects a unique

synthesis of indigenous traditions, foreign influences, and local innovations, thereby creating a rich tapestry of artistic expression.

Art in India represents a dynamic and multifaceted engagement with diverse artistic forms, reflecting the country's rich cultural heritage and its evolution over centuries. From ancient times, art has been an integral part of India's social, religious, and intellectual fabric (Dehejia, 1997). The history of art into various aspects of life has not only served aesthetic purposes but has also been a means of conveying complex philosophical, spiritual, and societal messages.

Ancient Period (c. 3000 BCE 1200 CE):

The earliest evidence of art in India can be traced back to the Indus Valley Civilization, where artifacts and seals showcase artistic expressions linked to religious and cultural practices. The Vedas, composed during this period, emphasize the intertwining of art, ritual, and spirituality. *Maurya and Gupta Empires (322 BCE 550 CE):*

The Mauryan and Gupta periods saw the flourishing of art and culture. The rock-cut caves, such as those at Ajanta and Ellora, depict scenes from daily life, religious narratives, and showcase the sculpture, painting, and architecture.

Medieval Period (600 CE 1526 CE):

The medieval period witnessed the art in various spheres, notably in the vibrant miniature paintings of Rajasthan and the Mughal courts. These paintings depicted religious narratives, courtly life, and illustrated manuscripts.

Bhakti and Sufi Movements (8th Century Onward):

The Bhakti and Sufi movements inspired a profusion of devotional art. This period saw the culture of music, dance, poetry, and visual arts as expressions of divine love and spiritual ecstasy. *Mughal and Rajput Courts (16th Century - 19th Century)*:

The Mughal rulers were great patrons of the arts, commissioning miniature paintings and architectural marvels like the Taj Mahal. The Rajput courts also contributed to the of art, emphasizing cultural richness and courtly traditions.

Colonial Era (17th Century - 20th Century):

The colonial era witnessed a fusion of Indian and European artistic styles. The Bengal School of Art emerged, led by figures like Abanindranath Tagore, emphasizing a return to traditional Indian art forms and themes.

Independence and Post-Independence Period (20th Century Onward):

The post-independence era saw the establishment of art institutions and a flourishing modern art movement. Artists like M.F. Husain, Tyeb Mehta, and Raja Ravi Varma played pivotal roles in integrating contemporary themes with traditional artistic styles.

Contemporary Art Scene (Late 20th Century - Present):

The contemporary art scene in India is marked by a diverse range of artistic expressions, reflecting the nation's sociocultural diversity. Artists explore new media, experiment with forms, and engage with global themes, contributing to a vibrant and dynamic art landscape.

Philosophical Underpinnings in Indian Art:

Indian philosophy, characterized by its pluralistic outlook and spiritual depth, has profoundly influenced artistic expressions across different epochs. The concepts of dharma (duty), karma (action), moksha (liberation), and samsara (cycle of birth and death) find vivid depiction in Indian art, whether through symbolic motifs, allegorical narratives, or philosophical themes. For instance, the sculptural reliefs of the Ellora caves depict scenes from Hindu, Buddhist, and Jain philosophies, reflecting the synthesis of diverse philosophical traditions in Indian art. Indian art, spanning millennia and encompassing diverse artistic traditions, is deeply intertwined with the rich tapestry of philosophical thought that has evolved on the Indian subcontinent. This research article aims to explore the profound philosophical underpinnings that inform and shape Indian art, elucidating how philosophical concepts are depicted, interpreted, and embodied in various artistic expressions. From the metaphysical inquiries of Vedanta to the moral teachings of Buddhism and the aesthetic principles of Natyashastra, Indian art serves as a visual manifestation of philosophical ideas, reflecting the quest for truth, beauty, and transcendence.

Vedantic Influences:

Central to Indian philosophy is the tradition of Vedanta, which explores the nature of reality, the self, and ultimate truth. Vedantic ideas, such as the concept of Brahman (the absolute reality) and Atman (the individual self), find expression in Indian art through symbols, motifs, and allegorical narratives. For example, the depiction of gods and goddesses with multiple arms and cosmic attributes symbolizes the interconnectedness of all existence and the underlying unity of the cosmos. Likewise, the iconography of deities meditating in serene contemplation reflects the quest for self-realization and spiritual enlightenment, as espoused in Vedantic thought.

Buddhist Aesthetics:

Buddhism, with its emphasis on compassion, impermanence, and the middle way, has profoundly influenced the artistic traditions of India. Buddhist art, characterized by its emphasis on simplicity, serenity, and symbolism, reflects the core teachings of the Buddha and the quest for liberation from suffering. The serene expressions of Buddha statues, the intricate carvings of stupas and monastic complexes, and the mandala paintings used for meditation all embody the philosophical principles of Buddhist aesthetics. Moreover, Buddhist art often serves as a visual aid for contemplation and mindfulness, guiding practitioners on the path to enlightenment.

Natyashastra and Aesthetic Theory:

The Natyashastra, attributed to the sage Bharata, is a foundational text on Indian aesthetics and performing arts. It delineates the principles of rasa (emotional essence), bhava (mood), and abhinaya (expression), which form the basis of Indian classical dance, music, and theater. Indian art, particularly classical dance forms such as Bharatanatyam, Kathakali, and Odissi, embodies these aesthetic principles, aiming to evoke a transcendental experience in the audience. Through gestures, expressions, and movements, dancers convey profound philosophical ideas and emotional states, transcending the limitations of verbal language.

Symbiosis of Art and Philosophy:

Indian art and philosophy are not separate domains but are deeply interconnected, forming a symbiotic relationship that transcends disciplinary boundaries. Artists draw inspiration from philosophical texts, concepts, and debates, infusing their creations with intellectual depth and spiritual resonance. Conversely, philosophers often employ artistic metaphors, analogies, and examples to elucidate abstract ideas and ethical principles. This interplay between art and philosophy enriches both disciplines, fostering a holistic understanding of the human condition and the quest for meaning and significance.

Mythology occupies a central place in Indian art, serving as a reservoir of archetypal symbols, heroic tales, and cosmic narratives. The epics of the Ramayana and the Mahabharata, along with the Puranas and the Vedas, provide a rich source of inspiration for artists, who interpret and reimagine these myths through various artistic mediums. The symbolism of gods and goddesses, mythical creatures, and celestial beings permeates Indian art, imbuing it with layers of meaning and cultural significance. This research article aims to explore the significance of mythological narratives in Indian arts, examining how they are depicted, interpreted, and reimagined across various artistic mediums. Indian art encompasses a wide range of mediums, including sculpture,

painting, architecture, dance, and literature, all of which have been used to depict mythological themes. In sculpture, for example, temples across India are adorned with intricate carvings of gods, goddesses, and mythical creatures, narrating stories from Hindu, Buddhist, and Jain traditions. Similarly, Indian paintings, such as the murals of Ajanta and Ellora, the miniature paintings of Rajasthan, and the Pattachitra scrolls of Odisha, often depict scenes from epics like the Ramayana and the Mahabharata, as well as stories of gods and goddesses. The depiction of mythological narratives in Indian art is not merely illustrative but is often laden with symbolic significance and allegorical meaning. For instance, the image of Lord Vishnu reclining on the cosmic serpent Shesha represents the concept of preservation and the cyclical nature of time. Similarly, the dance of Lord Shiva, known as the Tandava, symbolizes the cosmic rhythm of creation and destruction. Artists use these symbols and metaphors to convey philosophical ideas, moral principles, and spiritual truths embedded within Indian mythology.

Mythological narratives play a crucial role in shaping the cultural identity and collective memory of Indian society. Through artistic representations, myths are not only preserved but also perpetuated, passed down from one generation to the next. Festivals, rituals, and performances based on mythological themes serve as a means of communal bonding and cultural continuity, reaffirming the shared values and beliefs of the community. Thus, Indian art becomes a repository of cultural heritage, reflecting the enduring relevance of mythological narratives in contemporary society. One of the remarkable aspects of Indian art is its ability to adapt and reinterpret mythological narratives in response to changing times and contexts. While traditional forms of art continue to thrive, contemporary artists also explore new avenues of expression, incorporating mythological themes into diverse artistic mediums such as digital art, installation art, and performance art. This dynamic interaction between tradition and innovation ensures the continued relevance and vitality of mythological narratives in Indian arts. Indian art is deeply rooted in its cultural milieu, reflecting the social customs, religious practices, and everyday life of its people. From the colorful Madhubani paintings of Bihar to the intricate Pattachitra scrolls of Odisha, and from the vibrant Kalamkari textiles of Andhra Pradesh to the ornate Tanjore paintings of Tamil Nadu, each regional art form encapsulates the cultural diversity and artistic ingenuity of India. Through motifs, motifs, and themes drawn from folklore, rituals, and traditional practices, Indian art celebrates the cultural heritage and collective identity of its people.

Review of related Literature

Coomaraswamy, (1918) Coomaraswamy's work remains seminal in understanding the connection between Indian visual arts and spiritual philosophy. He explores how traditional art forms, such as dance, sculpture, and painting, are deeply embedded with metaphysical ideas from Indian philosophy and mythology. He argues that Indian art is not merely aesthetic but serves as a medium for expressing spiritual and philosophical truths. His insights provide a foundational understanding of how art serves as a vehicle for the transmission of cultural and philosophical values in Indian society.

Zimmer, Heinrich, (1946) Zimmer's analysis of Indian mythology through art offers a detailed examination of how ancient stories and symbols are visually represented. He emphasizes the role of mythological figures, such as deities and heroes, and their portrayal in temple sculptures, paintings, and architectural motifs. Zimmer suggests that these mythological depictions serve not only as artistic expressions but as representations of deeper philosophical concepts, such as karma, dharma, and the cosmic cycle. His work contributes to understanding how art in India becomes a narrative tool for transmitting timeless spiritual wisdom.

Michell, George, (2008) Michell's work explores the philosophical dimensions of classical Indian painting, particularly focusing on the Pahari and Mughal miniature traditions. He delves into the portrayal of themes like love, devotion, and divine play, connecting them with concepts from Indian philosophical texts, including the Upanishads and Bhakti literature. The review of his work reveals how Indian painters used visual language to express complex philosophical ideas, such as the relationship between the individual soul (Atman) and the universal spirit (Brahman). Michell's research provides valuable insights into how visual art serves as a mirror to India's rich metaphysical thought.

Objectives

- To explore the Indian art that represents philosophical ideas, mythological stories, and cultural traditions.
- To study how Indian art has evolved over different periods and regions.
- To understand the implications of Indian Knowledge System in Education

Methodology

The document analysis conducted in this study will serve as a foundational element for understanding the interplay between Indian art and its philosophical and cultural contexts. By examining a diverse range of documents, the research aims to reveal how artistic expressions have historically served as a vital medium for conveying complex ideas and cultural narratives, ultimately contributing to a richer understanding of Indian Knowledge Systems. This analysis will also inform the development of educational strategies aimed at integrating art and cultural studies into contemporary curricula, fostering greater appreciation for India's artistic heritage.

Analysis and Discussion

The connections between artistic expressions and the underlying philosophical underpinnings, mythological symbolism, and cultural ethos embedded within Indian society are deeply intertwined and manifest in various forms of artistic representation.

Depiction of Philosophical Concepts:

Artistic expressions in India often depict profound philosophical concepts from various schools of thought such as Vedanta, Samkhya, Nyaya, and Buddhism. For example, in sculpture, the concept of Advaita Vedanta, which emphasizes the ultimate unity of the individual soul (Atman) with the universal consciousness (Brahman), may be represented through the imagery of deities in serene meditation or in cosmic union.

Symbolism and Allegory:

Art in India frequently employs symbolism and allegory to convey philosophical ideas and moral principles. Mythological symbolism, such as the lotus representing purity and enlightenment or the serpent symbolizing eternity and cyclicality, is often used to convey deeper philosophical truths. Allegorical narratives, such as the stories of gods and goddesses overcoming adversity or exemplifying moral virtues, serve as moral parables that reflect the ethical teachings of Indian philosophy.

Mythological Narratives and Archetypes:

Indian art is replete with mythological narratives drawn from epics like the Ramayana, the Mahabharata, and the Puranas. These narratives embody timeless truths, archetypal conflicts, and moral dilemmas that resonate with the human experience. Artists often reinterpret these myths, infusing them with new meanings and interpretations that reflect contemporary concerns while preserving their underlying philosophical and cultural significance.

Cultural Ethos and Identity:

Artistic expressions in India are deeply rooted in the cultural ethos and collective identity of its people. Through motifs, symbols, and themes drawn from folklore, rituals, and traditional practices, art reflects the diversity and richness of Indian culture. Whether in the vibrant colors of Madhubani paintings, the intricate designs of Tanjore sculptures, or the rhythmic movements of Bharatanatyam dance, artistic expressions serve as a means of cultural preservation and self-expression, reaffirming the shared values and beliefs of the community.

Synthesis of Tradition and Innovation:

Indian art reflects a dynamic interplay between tradition and innovation, wherein ancient philosophical ideas are continually reinterpreted and reimagined in response to changing times and contexts. While traditional forms of art continue to thrive, contemporary artists also explore new avenues of expression, incorporating philosophical themes into diverse artistic mediums such as digital art, installation art, and performance art. This synthesis of tradition and innovation ensures the continued relevance and vitality of Indian art in a rapidly changing world.

Educational Implications

1. Integrating Art into Curriculum: This study highlights the potential for integrating art into the teaching of philosophy, history, and cultural studies. Schools and universities can use Indian art as a medium to teach students about philosophical concepts, mythological narratives, and cultural values. This interdisciplinary approach not only makes learning more engaging but also helps students connect abstract concepts with visual representations, making them easier to understand and remember.

2. Fostering Critical Thinking and Interpretation: Analyzing the visual depictions of philosophical ideas and cultural themes in Indian art can develop students' critical thinking and interpretative skills. By encouraging students to decode the symbolism in traditional artworks, educators can help them learn to analyze and appreciate the deeper meanings embedded in cultural expressions, promoting a more analytical and reflective approach to learning.

3. Promoting Cultural Awareness and Sensitivity: Incorporating the study of Indian art and knowledge systems into the curriculum can promote cultural awareness and sensitivity among students. It helps them appreciate the diversity of Indian traditions and the ways in which different regions and communities have contributed to the cultural tapestry. This awareness is essential in a multicultural society, fostering respect for different cultural perspectives and traditions.

4. Encouraging Creativity and Expression: Understanding how ancient Indian artists used art to convey philosophical and cultural ideas can inspire students to use creative forms of expression in their learning. This approach aligns with modern educational goals that emphasize creativity, critical thinking, and self-expression. Students can be encouraged to create their own artworks that represent their interpretations of philosophical or cultural themes, thus bridging traditional knowledge with contemporary expression.

5. Enhancing Teaching of Indian History and Philosophy: For educators teaching subjects like Indian history, philosophy, or cultural studies, this research offers new methodologies and teaching aids. By using art as a teaching tool, educators can present historical events, philosophical discourses, and cultural narratives in a more engaging and visually appealing manner. This can make complex topics, such as the ideas in the Upanishads, the epics like Ramayana and Mahabharata, or the symbolism in temple architecture, more accessible to students.

6. Supporting the Goals of NEP 2020: The New Education Policy (NEP) 2020 emphasizes the need for a holistic, multidisciplinary approach to education, with a focus on promoting Indian cultural heritage. This study aligns with these objectives, providing a framework for integrating the study of Indian knowledge systems and art into the curriculum. It supports the policy's goal of creating a sense of pride in India's rich cultural history while fostering global awareness.

7. Contributing to Value Education: Indian art is deeply embedded with values and moral teachings derived from ancient texts and traditions. By exploring these values through art, educators can offer lessons on ethics, empathy, and the importance of living in harmony with nature and society. This can be particularly useful in the context of value education, helping students internalize these values through engaging, artistic representations.

8. Enhancing Visual Literacy: The study encourages the development of visual literacy understanding and interpreting visual information—which is increasingly important in the modern world. By engaging with visual art, students learn to recognize and interpret symbols, motifs, and cultural references, which can improve their ability to analyze and communicate through visual media.

CONCLUSION:

The philosophical underpinnings in Indian art reflect the profound insights, moral values, and spiritual aspirations that have animated Indian civilization for millennia. From the metaphysical

inquiries of Vedanta to the moral teachings of Buddhism and the aesthetic principles of Natyashastra, Indian art serves as a visual repository of philosophical ideas, embodying the quest for truth, beauty, and transcendence. By exploring the symbiotic relationship between art and philosophy, we gain a deeper appreciation of the cultural heritage and intellectual legacy of India. Mythological narratives form the bedrock of Indian artistic expression, providing a rich source of inspiration, symbolism, and cultural identity. Through sculpture, painting, dance, literature, and architecture, artists have interpreted and reimagined these myths, infusing them with new meanings and interpretations. As we continue to explore the significance of mythological narratives in Indian arts, we gain a deeper appreciation of the enduring legacy and cultural resonance of these timeless tales. The synthesis of philosophy, mythology, and culture in Indian art serves as a mirror reflecting the multifaceted dimensions of Indian knowledge systems. By unraveling the layers of symbolism, allegory, and cultural context embedded within artistic expressions, we gain insights into the timeless wisdom and profound insights that have shaped Indian civilization. As we continue to trace Indian knowledge systems through art, we embark on a visual journey that transcends time and space, connecting us to the ancient roots and enduring legacy of Indian culture. In essence, artistic expressions in India serve as a visual manifestation of the philosophical underpinnings, mythological symbolism, and cultural ethos that have shaped Indian society for millennia. Through the interplay of symbolism, narrative, and aesthetic expression, art becomes a powerful medium for exploring the profound questions of existence, morality, and human experience that lie at the heart of Indian philosophy and culture.

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Integration of TPACK among Urdu Medium Science Teachers of Hyderabad (INDIA)

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ABSTRACT

TPACK is a framework that combines all the basic three components of knowledge (content, pedagogy and technology) and their interweaving relationship, elucidating why technology cannot be treated in isolation when it comes to the classroom teaching. It is often referred to as a "TOTAL PACKAGE" required by an educator for an effective pedagogical practice in a technologyenhanced learning environment. In present scenario, where the world is becoming more and more technologically advanced, TPACK Framework has a greater role to play. Technology has no doubt emerged as an indispensable part of today's younger generation; especially among students it has a great impact. This is why technology cannot be treated as a separate entity for teaching learning process. A teacher must not ignore technology or leave it outside the classroom. With the knowledge of TPACK, a teacher can easily and successfully deal with the technologically integrated classroom. TPACK is not all about technology use but it also emphasizes on mastering the subject or content to be taught and knowing the best suitable method for effective transaction of instructions. The present study was conducted to determine the Integration of TPACK among Urdu Medium Science Teachers teaching in Hyderabad city (INDIA). It further sought to examine if there any significant association between the seven dimensions of TPACK with the Gender. The findings of this study revealed that the Science teachers performed better in terms of Content Knowledge (CK) and Pedagogical Knowledge (PK) compared to Technological Knowledge (TK) implying that the teachers were less technologically advanced. Further, male science teachers performed comparatively better than their female counterparts in terms of TK, CK, TCK, PCK and TPCK. It was discovered that four dimensions of TPACK Framework; Technological Knowledge (TK), Content Knowledge (CK), Pedagogical Knowledge (PK), and Technological Pedagogical Knowledge (TPK) of the science teachers were not significantly associated with the Gender. However, Technological Content Knowledge (TCK), Pedagogical Content Knowledge (PCK) and Technological Pedagogical Content Knowledge (TPCK) of the science teachers were found to be significantly associated with the Gender.

Keywords: Content Knowledge, Pedagogical Knowledge, Technological Knowledge, Technological Pedagogical Content Knowledge, Science teachers, Urdu medium schools

Education is the compilation and product of many and varied resources. Teaching and Content have always been related in complex ways. Among all the factors that account for any student's achievement, teachers' quality plays the most important role in all round development of any student. Before proceeding for any instruction in the class, a teacher must keep three things in his mind, "what I am going to teach i.e. what will be the subject matter that I am going to deal with, how will I teach i.e. what methodology or techniques I will adopt for the effective transmission of content and what effective technology integration will look like." It is the teacher just need to know about teaching, about content or subject matter, and pedagogy or teaching strategy not only separately but also how these are going to influence each other in a specific context. The challenges that a teacher faces today in order to deal with technology is its rapid change at every nooks of the corner. How we teach and what we teach is mostly influenced by the shift in technology. The three domains of knowledge i.e. content, pedagogy and technology along with their interweaving relationship must be borne in mind before a teacher prepare any lesson plan.

Based on this idea, Puniya Mishra and Matthew J. Koehler of Michigan University proposed "TPACK Framework" that describes the knowledge and understanding regarding the interplay between the three domains of knowledge. "Underlying truly meaningful and deeply skilled teaching, TPACK is different from knowledge of all the three concepts individually. TPACK is the basis of effective teaching with technology, requiring an understanding of the representation of concepts using technologies; pedagogical techniques that use technologies in constructive ways to teach content; knowledge of what makes concepts difficult or easy to learn and how technology can help readdress some of the problems that students face; knowledge of students' prior knowledge and theories of epistemology; and knowledge of how technologies can be used to build on existing knowledge to develop new epistemology or strengthen old ones." (Koehler & Mishra, 2009)



The TPACK Framework has seven dimensions namely; Technological Knowledge (TK), Pedagogical Knowledge (PK), Content Knowledge (CK), Pedagogical Content Knowledge (PCK), Technological Content Knowledge (TCK), Technological Pedagogical Knowledge (TPK) and Technological Pedagogical Content Knowledge (TPACK) as shown in the diagram above. *Technological Knowledge* explains that how suitable technology can be used in specific content domain while delivering the instructions to the students. *Pedagogical Knowledge* deals with the art of teaching that involves teachers' deep knowledge about the processes, practices and various teaching techniques or strategies that may be used while delivering the instructions in an effective and interesting way. Content Knowledge refers to the knowledge of the actual content or the subject matter to be dealt with. An educator must have the command or mastery over the subject he is going to teach in the class. *Pedagogical Content Knowledge* simply means transforming the subject matter for teaching. It basically relates pedagogy with the content knowledge that how any specific content/subject matter can be instructed by using an appropriate approach or method. Technological Content Knowledge deals with the usage of technology wisely and effectively while delivering the content. Technological Pedagogical Knowledge refers to the use of suitable technology along with the various methods or approaches for effective teaching. *Technological* Pedagogical Content Knowledge is the combination of all the three domains of knowledge content, pedagogy and technology that one must be aware of to be a skilled teacher.

The TPACK Framework proves to be very helpful to a teacher in preparing any technology integrated instruction for his/her students. With time TPACK framework has emerged as a clear and useful framework for researchers working to understand technology integration in teaching

learning process. One must remember that technology does not substitute pedagogy knowledge or content knowledge but rather it adds another dimension to it. Thus, a teacher must understand and use the concept of TPACK for teaching in a most proficient way. However, the teacher must have the proper knowledge to use technology wisely and purposefully, it should be integrated in the lesson plan only if it will enhance the students' learning. TPACK Framework proves to be a very helpful tool that a teacher can use to analyse his/her own knowledge and make better plans for technology integrated teaching. Teacher uses TPACK model as a language for exploring and analysing technology integrated activities with one another. TPACK model provides a mental framework that explains how the three domains of knowledge are interrelated with each other and can be successfully used for technology integrated classroom. It helps the teacher to select the method which is most suitable and more likely to be effective based on their instructional goals.

REVIEW LITERATURE

Moreno et al. (2019) studied the development of the TPACK model by examining various publications related to TPACK model published from 2014 to 2017. Findings of this study revealed that all the selected publications were focused on TPACK (100%), 14 of them were related to ICT integration with TPACK model, 10 of the publications dealt with the professional development of teachers in relation to digital competence, 9 of them were based on the theoretical framework of the TPACK, and, 4 of them studied the attitude towards ICT accompanying TPACK formwork. Sintema & Phiri (2018) in their investigation found that there was a significant difference in the TPACK scores of student teachers based on gender, but showed no significant difference based on grade level. Regarding the TPACK sub-factors, a significant difference was seen in TK, PK and PCK knowledge bases of the student teachers based on gender, while there was no significant difference recorded in their CK, TCK, TPK and TPACK knowledge bases. Further, the results revealed a significance difference in the PK knowledge base of the student teachers based on grade level while a no significance result was shown on TK, CK, PCK, TCK, TPK and TPACK knowledge bases of the students and teachers in relation to grade level. Another study undertaken by Naaz & Khan (2018) signified that the pre-service teachers had high technological knowledge compared to their technological content knowledge. Moreover, male pre-service teachers possessed more technological knowledge compared to their female counterparts. It was also concluded that there was no significant difference in overall TPACK level among different streams of pre-service teachers.
Ekrem & Recep (2014) in their research concluded that the male English teachers had higher TK than the female English teachers; however, female teachers showed better PK compared to their counterparts. While examining the perception of the TPACK of faculty, **Garrett (2014)** unveiled that the faculty had a positive perception of their knowledge in all the seven domains of TPACK (TK, PK, CK, TCK, TPK, PCK, and TPACK). It also reported that there was no significant difference in overall TPACK of faculty in relation to their gender and educational discipline. However, there was a significant difference in the TPACK when academic ranking was considered. **Archambault & Crippen (2009)** argued that there was significant difference between the pre-test and post-test means for all 7 TPACK subscale indicating that the TPACK framework is very helpful for enhancing learning experiences among future teachers.

OBJECTIVES OF THE STUDY

- To analyze the integration of TPACK among science teachers of Urdu medium schools of Hyderabad.
- 2. The compare the seven dimensions of TPACK with regard to Gender.

HYPOTHESIS

H₀₁: There is no statistically significant association between the seven dimensions of TPACK with the Gender.

H₁₁: The seven dimensions of TPACK of the teachers are significantly associated with Gender.

MATERIALS AND METHODS

This study is primarily descriptive in nature where the investigator has adopted survey method for investigation. This enabled the investigator to carry out the research in the real-life setting which are prevailing in the Urdu medium schools.

Tool Used: In order to analyze the TPACK integration among teachers and compare the seven dimensions of TPACK Framework interview schedule was developed and administered to gather the primary data from 31 teachers of Urdu medium schools of Hyderabad city. The carefully designed structured interview schedule was based on two-point Likert Scale that contained 60 questions. The developed interview schedule was based on 7 dimensions namely, TK (Technological Knowledge), CK (Content Knowledge), PK (Pedagogical Knowledge), TCK (Technological Content Knowledge), PCK (Pedagogical Content Knowledge), TPK

(Technological Pedagogical Knowledge), and TPCK (Technological Pedagogical Content Knowledge). Each dimension comprised of specific number of variables related to the study like TK 17 variables, CK 7 variables, PK 12 variables, TCK 6 variables, PCK 9 variables, TPK 4 variables, TPCK 5 variables. The reliability of the tool was calculated using the Spearman-Brown prophecy formula which was found to be 0.79.

Population and Sample: The government Urdu medium secondary schools of Hyderabad city (Telangana, India) constituted the population for the present study.

Gender	Counts
Female	20
Male	11
Grand Total	31

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For the present study, a total of 16 Urdu medium schools were shortlisted for the sample among which 12 were government schools, 2 were government aided schools and 2 were private schools. Random sampling technique was used to select a sample 31 teachers of Urdu medium schools of Hyderabad city among which 20 teachers were female and 11 were males. Majority of the sampled teachers (12) belonged to the age group 31 to 40 years. There were only 4 teachers who were above 50 years of age. Most of the teachers (18) were in the group of 31 to 40 years of teaching experiences. Least numbers of teachers belonged to the experience group of 21 and above years. **Statistical Technique Used:** Collected primary data was analyzed using MS Excel, SPSS. Percentage-wise analysis was done to determine the nature and integration of TPACK among the science teachers. Minitab Software was specifically used for performing chi square test in order to test the association of TPACK dimensions with gender.

DATA ANALYSIS AND INTERPRETAION

Table 2:	TPACK	Scores	and	gender
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							Chi	P-	
Dimension	Gender	Yes	Yes%	No	No %	Total	Square	Value	Remarks
Technelssieel	Female	226	66.86	112	33.14	338			
Knowledge	Male	140	71.79	55	28.21	195	1.397	0.237	
(TK)	Total	366	68.67	167	31.33	533			H0 Accepted

Source: Primary data collected from the field

Contont	Female	126	90	14	10	140	0.765	0.000	
Knowledge	Male	72	93.51	5	6.49	77	0.765	0.382	
(CK)	Total	198	91.24	19	8.76	217			H0 Accepted
Pedagogical	Female	219	91.25	21	8.75	240			
Knowledge	Male	120	90.91	12	9.09	132	0.012	0.912	
(PK)	Total	339	91.13	33	8.87	372			H0 Accepted
Technological	Female	91	75.83	29	24.17	120			
Content	Male	58	87.88	8	12.12	66	3.877	0.049	
(TCK)	Total	149	80.11	37	19.89	186			H0 Rejected
Pedagogical	Female	153	85	27	15	180			
Content	Male	93	93.94	6	6.06	99	4.894	0.027	
(PCK)	Total	246	88.17	33	11.83	279			H0 Rejected
Technological	Female	59	73.75	21	26.25	80	0.155	0.694	
Pedagogical Knowledge	Male	31	70.45	13	29.55	44	0.122	0.091	
(TPK)	Total	90	72.58	34	27.42	124			H0 Accepted
Technological Pedagogical	Female	74	74	26	26	100	9.848	0.002	•
Content	Male	52	94.55	3	5.45	55	2.010	0.002	
(TPCK)	Total	126	81.29	29	18.71	155			H0 Rejected

Source: Primary data collected from the field

The above table analyzes the nature and distribution of the seven dimensions of the TPACK Framework among the of the science school teachers teaching in Urdu medium schools. It also compares the seven dimensions with Gender.

The tabulated data inferred that about 69 % of the teachers had Technological knowledge. It was discovered that 71.79% of the male teachers had TK, while only 66.86% of the female teachers had the same. It may be noted that 4.93% more male teachers possessed TK than their female counterpart. This revealed that male teachers were more technology oriented than female teachers. It was also concluded that 91.24 % of the total teachers had CK rest 8.76 % them did not had the same. It was further seen that 93.51 % of the male teachers and 90 % of the female teachers had CK signifying that male teachers had comparatively more content knowledge than the female teachers had almost similar PK around (91 %). Not much significant difference was noted between male and female teachers PK.

The percentage of the teachers having TCK was found to be more than 80 %. The study found that there was significant difference between the male and female teachers with 12.05%

more male teachers scores over their female teachers on this count. It is a matter of concern that such a big difference was noted between male and female teachers. Only 11.83 % of the total teachers informed that they did not have PCK. 93.94% of the male teachers had the PCK compared to the female teachers (85%). The percentage of male teachers having PCK was found to be quite higher (8.94%) compared to their female counterparts. It was unmasked by the researcher that 72.58 % of the teachers had TPK. In addition to this, it also discerned that 70.45 % of the male teachers and 73.75 % of female teachers had TPK indicating that in this context, female teachers were better as compared to their male counterparts by about 3.30%.

The TPCK of the teachers was found to be 81.29 %. The male teachers' TPCK was pegged at 94.55%. The data further revealed that TPCK of the male teachers was almost 21% higher than the female teachers. This is an area of concern. Necessary measures must be taken to improve the TPCK of the female teachers.

To analyze if there was any significant association between the seven dimensions of TPACK Framework with the Gender, Chi Square analysis was performed. Chi Square value is given at the above table's column third from right and P value at second column from right. For any dimension having p values ≥ 0.05 , the Null Hypothesis was accepted suggesting that there was no significant association in the Gender and that particular dimension. With p value <0.05, the null hypothesis was rejected.

It was inferred that the four dimensions of the TPACK Framework namely; CK, PK, TK, and TPK of the teachers were not statistically significantly associated with their Gender. However, PCK and TCK of the teachers were found to be significantly associated Gender. The result of this study further revealed that TPCK was also significantly associated with the Gender, indicating that although Gender did not have any impact on the different dimensions of TPACK separately but when combined together, it showed statistically significant association with the Gender of the teacher. This signified that although male and female science teachers of the Urdu medium schools were equally confident in using separate combination of CK, TK and PK. However, there was a significant difference between the TPCK (that integrates the three domains of knowledge, content, pedagogy and technology) of Male and Female Science teachers.

DISCUSSION

While examining the TPACK integration, it was discerned by the researchers that TK was the lowest (68.67%) amongst all the seven dimensions among all the teachers. This indicates that although the teachers had command over their subject and were aware of various pedagogical practices, they lacked the technological knowledge. Through the teachers, the researcher found out that there was lack of proper trainings provided to them regarding how to deal with the new technologies and technology integrated classroom. This might be the probable reason behind the teachers' poor Technological Knowledge. When gender differences were counted for, CK, PK and TK, it was found that 3.51% more male teachers scored than their female counterparts having CK. However, not much significant difference was observed between male and female teachers on count of the PK. On this, the female teachers score more by 0.34% over their male counterparts. The female teachers scored the best among all the seven dimensions on PK. Furthermore, 4.93% more male teachers had TK compared to the female teachers. Similar result was observed in a research carried out by Naaz & Khan (2018) reported that the male pre-service teachers possessed more technological knowledge compared to their female counterparts which is in par with the present study. In another study conducted by Muhaimin et al. (2019), the findings indicated that technological based knowledge was higher among male science teachers compared to their female counterparts.

During the study the researcher perceived that PCK was found among 88.17% teachers. It was slightly less (4% ball park) than PK among the teachers. But PCK among teachers was seen almost 8% more compared to TCK among the teachers. The low technological knowledge of the teachers may be causing a barrier in the TCK of the teachers resulting in its lower count. Furthermore, among all the 7 dimensions, the TPK was perceived to be the second lowest among the teachers followed by TK. 72% of the teachers had TPK. The background of both the teachers and the students may be causing a big hindrance in the technology integrated classroom. Since, it was the second lowest among all the dimensions, special focus must be accorded to increase the TPK among the teachers. This collaborate the findings of Muhaimin et al (2019) which reported that female science teachers had higher Pedagogical Knowledge and higher Pedagogical Content Knowledge compared to the male science teachers had better pedagogical knowledge compared to the male English teachers. It was unmasked that 81.29% had TPCK about 1% higher than TCK. But alarming difference was noticed between male and female teachers. It can be seen that 20.55%

less female teachers were aware than the male teachers. The reason behind such a big difference must be sought for. Suitable policies must be designed and priorities must be accorded to reduce the gender differences on this count.

Chi Square analysis of the data revealed that that the four dimensions of the TPACK Framework namely; CK, PK, TK, and TPK of the teachers were not statistically significantly associated with their Gender. Furthermore, PCK and TCK of the teachers are found to be significantly associated with Gender. Also, TPCK was found to be significantly associated with the Gender. The similar result was also found in a research conducted by Sintema & Phiri (2018) which reported that there was a significant difference in the TPCK scores of the student teachers based on Gender. However, another study conducted by Garrett (2014) reported that there was no significant difference in overall TPACK of faculty in relation to their Gender and Educational discipline. This study also contradicts the findings of Kumar (2017) that there was no significant effect of either gender or type of institution of teacher trainee institution on TPCK. A similar study carried out by Kumar & Gangmei (2018) showed that no significant difference was found in the TPACK level of male and female teacher educators indicating that the technological pedagogical content knowledge does not depends on the gender rather it relies on the interest and attitude of teacher educators.

CONCLUSIONS AND RECOMMENDATIONS

It was concluded by the researchers from this study that, the teachers teaching in Urdu medium schools had mastery over their subject and various pedagogies of teaching science, but they posed less technological knowledge that are being widely used for teaching. Emphasis must be given to increase technology knowledge among the teachers as it was found be the least among the three basic domains (TK, CK and PK) amongst the teachers. It was further unearthed that, while male teachers outperformed female teachers in terms of CK and TK, whereas female teachers performed little bit better than their male counterparts in terms of PK. Much more percentages of male teachers compared to the female teachers were confident in dealing with TCK. Further, more percentages of male teachers were aware of TPK compared to the female teachers. There is a need to bridge the gender difference among male and female teachers. Suitable policies must be designed to erase these differences.

The researcher further inferred from the Chi Square analysis of the data that there was no statistically significant association between the CK, PK, TK, and TPK of the teachers and Gender. However statistically significant association was seen in the PCK, TCK and TPCK with the Gender. Thus, it was concluded by the researcher that although male and female science teachers of the Urdu medium schools were almost equally confident on using separate combination of CK, TK and PK, there was a significant difference between their TPCK that integrates all the three domains of knowledge. P value 0.002 indicated that the association between the TPCK and Gender was statistically very strong i.e. TPCK of the science teachers was statistically associated with their Gender. It is a matter of concern that such a big difference was noted between male and female teachers. Suitable measures must be initiated and priorities must be accorded to reduce the gender differences on this count. By and large, there is a need to increase the knowledge about the 7 dimensions among the teachers. However, special focus must be paid to low scoring dimensions TK, TPK followed by TCK and TPCK and TCK.

The need for technology training for teachers keeps on growing in line with the development of technology itself. Although technology nowadays is more and more user friendly and may need no specific training on how to use it, teachers need to possess the knowledge that underpins the idea of using it for teaching and learning processes. In addition to this the teachers need to have solid pedagogical knowledge on how to use the technology to deliver contents to their students. Thus, proper training must be given to the teachers on the integrated use of all the three domains of knowledge making the classroom teaching more effective and improving up on the academic performance of the students. TPACK Framework equips the educators with a theoretical framework to deal with the complexity of technology integration. It sits at the heart of three interrelated components which interacts, supports and constraints each other. The TPACK Framework must be used at various levels of research related to use and integration of different technologies in the teaching learning process in order to make the teaching learning process more interesting and effective.

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A STUDY OF THE RELATIONSHIP BETWEEN STUDY SKILLS AND REINFORCERS

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Abstract

This study explores the intricate relationship between study skills and reinforcement strategies in secondary education. It examines how various reinforcement techniques enhance students' study habits and academic performance. The research investigates different types of reinforcers, including primary, secondary, social, tangible, and activity-based reinforcements, and their impact on developing effective study skills. The findings demonstrate that strategically implemented reinforcement systems, combined with proper study techniques, lead to improved academic outcomes, increased student motivation, and long-term learning success. The study emphasizes the importance of transitioning from external to internal motivation through systematic reinforcement approaches.

Keywords: Study Skills, Reinforcers, Learning strategies

Every student is aware of how critical it is to cultivate effective study techniques to achieve academic success. However, a lot of students have trouble figuring out efficient study methods that suit them. A study skills and student reinforcer might be helpful in this situation. A tool or resource that aids students in honing their study techniques is known as study skills and student reinforcer. It can be a book, workshop, online course, or even a tutor, among other formats. The goal of a study skills program is to help students succeed academically, particularly in secondary school. However, it's sometimes overlooked how grasping the idea of a reinforcer might improve these abilities. Imagine being able to increase your capacity for learning just by identifying your motivations!

Study skills

Study skills are essential tools that empower students to learn efficiently. They encompass a variety of techniques, such as time management, note-taking strategies, and active reading methods.

Effective study habits help secondary school students organize their thoughts and materials. This organization leads to better comprehension of complex subjects.

Additionally, developing good study skills promotes critical thinking abilities. When students engage with the material actively rather than passively absorbing information, they deepen their understanding.

Moreover, these skills foster independence and confidence in learners. As secondary school students refine their approach to studying, they gain ownership over their educational journey.

Incorporating diverse learning styles also enhances study effectiveness. Visual aids, discussions with peers, or hands-on experiences can make the process more dynamic and less monotonous.

Understanding what reinforces their study habits can lead to better academic performance for secondary school students. When they recognize which factors encourage them to learn and retain information, they are empowered to cultivate those behaviors.

Recognizing individual preferences for reinforcement also helps tailor study strategies effectively. This personalized approach can transform mundane tasks into enjoyable challenges that promote growth and success in various subjects.

Reinforcers

A reinforcer is any stimulus, event, or consequence that follows a behavior and increases the likelihood that the behavior will occur again in the future. In educational contexts, reinforcers are tools or strategies used to encourage and strengthen desired learning behaviors and study habits. They can be either naturally occurring or deliberately arranged to promote positive academic behaviors.

Types of Reinforcers

1. Primary Reinforcers

- Definition: Natural reinforcers that satisfy basic biological needs
- Examples:
 - Food (healthy snacks after completing homework)
 - Drinks (water breaks during study sessions)
 - Rest (scheduled breaks after focused study periods)
 - Physical comfort (comfortable study environment)

2. Secondary Reinforcers

- Definition: Learned reinforcers that gain their value through association with other reinforcers
- Examples:
 - Grades and marks
 - Praise and recognition
 - Certificates and awards
 - Privileges and special status

3. Social Reinforcers

- Definition: Reinforcement that involves human interaction and social approval
- Examples:
 - Verbal praise from teachers
 - Peer recognition
 - Social media acknowledgment
 - Parent appreciation
 - Group celebration of achievements

4. Tangible Reinforcers

- Definition: Physical items or objects given as rewards
- Examples:
 - Stickers and stamps
 - Merit badges
 - Books or educational materials
 - Small prizes or tokens
 - Achievement certificates

5. Activity Reinforcers

- o Definition: Preferred activities used as rewards for completing less preferred tasks
- Examples:
 - Extra computer time
 - Choice of study location
 - Leading group activities
 - Special project participation
 - Extended break times

Characteristics of Effective Reinforcers

- 1. Immediacy
 - Immediate feedback on assignments
 - Quick recognition of achievement

• Prompt acknowledgment of effort

2. Consistency

- Regular application of reinforcement
- Clear connection between behavior and reward
- Predictable reward system

3. Appropriateness

- Age-appropriate rewards
- Culturally sensitive recognition
- Individual preference consideration

4. Variety

- Multiple types of reinforcement
- Different levels of rewards
- Diverse recognition methods

Practical Applications in Education

1. Classroom Management

- Point systems for participation
- Behavior charts
- Class privileges
- Group rewards
- Individual recognition

2. Academic Achievement

- Honor roll recognition
- Progress certificates
- Achievement badges
- Academic awards
- Performance celebrations

3. Study Habits

• Study streak rewards

- Completion certificates
- Time management recognition
- o Goal achievement celebration
- Progress tracking rewards

4. Skill Development

- Mastery badges
- Level-up systems
- Skill certificates
- Progress portfolios
- Competency recognition

Understanding and effectively implementing reinforcers is crucial for educators and parents in supporting student learning and development. The key is to use them strategically and gradually transition from external to internal motivation as students develop stronger study habits and academic skills

Relationship between study skills and reinforcer

The relationship between study skills and reinforcers can significantly influence the academic success of secondary school students. Study skills serve as the foundation for effective learning, while reinforcers act as motivators that encourage students to apply these skills consistently. When students engage in healthy study habits, they often experience better grades, increased confidence, and a deeper understanding of their subjects. Reinforcers play a crucial role here; they can be intrinsic or extrinsic rewards. For example, praise from teachers or parents can motivate a student to continue using effective study techniques. Similarly, setting and achieving personal goals provides self-satisfaction—another form of reinforcement. By understanding this dynamic interplay between study skills and reinforcers, educators and parents can create supportive environments that foster students' skill development and motivation. As secondary school students navigate their educational journey, harnessing the power of effective study strategies coupled with positive reinforcements will enhance their learning experiences and instill lifelong habits beneficial for future endeavors.

Educational Implications

Academic Achievement Rewards

Academic achievement rewards serve as powerful motivators in the educational environment. These tangible recognitions of success can transform students' attitudes toward studying and academic performance. Merit certificates and academic badges provide visible symbols of accomplishment that students can proudly display, fostering a sense of pride and encouraging continued excellence. The honor roll system creates a prestigious goal for students to strive toward,

while special privileges like preferred seating or extended library access make the rewards practical and meaningful. These rewards are particularly effective because they directly connect effort with recognition, helping students understand the value of their study habits and academic dedication.

Progressive Learning Points System

The progressive learning points system introduces an element of gamification to the learning process. By implementing a structured point-tracking system, whether digital or physical, students can visualize their progress and work toward specific goals. This system works similarly to video games, where achievements unlock new levels or rewards, making the learning process more engaging and interactive. The accumulative nature of the points system encourages consistent effort rather than sporadic bursts of studying. Students can redeem their points for various privileges, creating a direct link between sustained effort and tangible benefits. This approach particularly resonates with modern students who are familiar with similar systems in digital environments.

Social Recognition and Peer Support

The power of peer influence is harnessed through social recognition and peer support systems. This reinforcer capitalizes on students' natural desire for social acceptance and leadership opportunities. By creating platforms for students to showcase their academic achievements and help others, schools can build a positive academic culture where success is celebrated collectively. Peer tutoring opportunities not only reinforce the tutor's knowledge but also create valuable social connections. When students present their success stories to classmates, they develop public speaking skills while inspiring others. This social dimension of reinforcement creates a supportive learning community where academic achievement is valued and celebrated.

Technology-Based Reinforcement

In our digital age, technology-based reinforcement systems offer unique advantages in supporting study skills development. Educational apps with achievement badges and online progress tracking provide immediate feedback and gratification. These digital tools can make the learning process more interactive and engaging, appealing to students who are comfortable with technology. Virtual rewards and certificates can be easily shared on social media or educational platforms, extending the recognition beyond the classroom. The automated nature of these systems ensures consistent and timely reinforcement, while the interactive elements keep students engaged and motivated.

Personal Growth Portfolio

The personal growth portfolio represents a more introspective approach to reinforcement. This system encourages students to document their academic journey through goal tracking, skill development records, and personal reflections. By maintaining a portfolio, students can visually see their progress over time, which serves as a powerful motivator for continued effort. The inclusion of photographs, videos, and journal entries makes the learning process more personal and meaningful. This approach helps develop metacognitive skills as students reflect on their

learning strategies and achievements, fostering a deeper understanding of their educational development.

Tiered Privilege System

The tiered privilege system introduces an element of autonomy and responsibility into the learning process. As students demonstrate consistent study habits and academic achievement, they earn increasing levels of freedom in their educational choices. This might include opportunities to participate in advanced learning programs, flexibility in assignment formats, or the ability to choose study locations. The system recognizes and rewards maturity and responsibility, preparing students for the independence they'll need in higher education. By linking privileges to academic performance and study habits, this system creates a natural progression toward self-directed learning.

Implementation and Integration

For these reinforcers to be maximally effective, they should be implemented thoughtfully and systematically. Schools and educators need to ensure that the reinforcement systems are fair, transparent, and consistently applied. Regular review and adjustment of these systems ensure they remain relevant and effective. The ultimate goal is to help students transition from relying on external reinforcement to developing intrinsic motivation for learning and academic achievement. This transition is crucial for long-term success and the development of lifelong learning habits.

Long-term Impact

When properly implemented, these reinforcement systems can have lasting effects on students' academic careers and beyond. They help establish positive study habits, develop time management skills, and foster a growth mindset. The combination of immediate rewards and long-term benefits helps students understand the value of consistent effort and effective study strategies. Moreover, these systems help create a positive academic environment where learning is valued and achievement is celebrated, contributing to overall school culture and student success.

Techniques

1. Time Management Techniques

- Creating detailed study schedules
- Using the Pomodoro Technique (25 minutes study, 5 minutes break)
- Setting specific goals for each study session
- Prioritizing tasks based on importance and deadlines

2. Active Learning Strategies

- Cornell note-taking method
- Mind mapping for concept visualization

- SQ3R method (Survey, Question, Read, Recite, Review)
- Practice testing and self-quizzing
- 3. Reinforcement Techniques
- Immediate feedback systems
- Progress tracking charts
- Reward systems for achieving study goals
- Social recognition and peer support groups

Conclusion

Study skills and reinforcers play a vital role in shaping students' academic success and personal development. The integration of effective study techniques with appropriate reinforcement strategies creates a powerful learning environment that promotes both academic achievement and personal growth. The evidence suggests that:

- 1. Students who develop strong study skills combined with positive reinforcement are more likely to succeed academically and maintain long-term motivation.
- 2. The relationship between study skills and reinforcers is symbiotic good study habits lead to positive outcomes, which in turn reinforce the continued use of these skills.
- 3. Educational institutions should prioritize teaching study skills and implementing reinforcement systems as part of their core curriculum.
- 4. The benefits extend beyond academic performance to include improved self-efficacy, time management, and life skills.

Going forward, it's crucial for educators and institutions to:

- Regularly assess and update study skills programs
- Customize reinforcement strategies to individual student needs
- Provide ongoing support and resources for skill development
- Foster an environment that encourages both academic excellence and personal growth

This comprehensive approach will ensure that students are well-equipped for academic success and prepared for future challenges in their educational and professional journeys.

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Enhancing Retention of Social Science Knowledge Through Cognitive Engagement: A Qualitative Perspective

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Abstract

Retention of knowledge is pivotal in ensuring the long-term impact of social science education. This paper explores how cognitive engagement strategies—such as active participation, problemsolving, and reflective learning—can significantly enhance the retention of social science knowledge among students. Employing a qualitative approach, this study investigates the experiences of teachers and students through interviews and classroom observations. The findings highlight the role of interactive teaching methods and personalized learning experiences in fostering deeper understanding and retention of social science concepts.

Keywords: Retention, Social Science Education, Cognitive Engagement, Active Learning, Qualitative Study

Introduction

Retention of knowledge in social science education is a critical concern for educators. Social sciences require not only understanding of historical, cultural, and societal concepts but also their application in real-world scenarios. However, students often struggle to retain this knowledge due to traditional, lecture-based teaching methods that fail to engage them cognitively. Cognitive engagement—defined as the process of actively interacting with information to construct meaningful understanding—has emerged as a promising approach to address this issue.

This paper explores how cognitive engagement strategies, such as collaborative learning, inquirybased approaches, and reflective practices, can enhance the retention of social science knowledge.

Significance

Social sciences provide students with essential tools to critically analyze societal structures, develop empathy, and contribute to community development. Enhancing retention of knowledge in this domain ensures that students not only grasp the content but also apply it effectively in their personal and professional lives. By integrating cognitive engagement strategies, educators can bridge the gap between theoretical understanding and practical application, creating lifelong learners who can navigate and influence a complex world.

Review of Literature

Studies underscore the importance of cognitive engagement in education. According to Chi (2009), active engagement with content—through discussion, problem-solving, and hands-on activities—leads to better comprehension and memory retention. Similarly, Prince (2004) highlighted that active learning strategies in classrooms promote critical thinking and long-term retention. In the context of social sciences, Metzger (2018) argued that interactive and inquiry-based approaches make abstract concepts more relatable, thereby enhancing understanding and recall.

Objectives

- To analyze the effectiveness of cognitive engagement strategies in enhancing retention of social science knowledge.
- To explore the experiences of students and teachers using cognitive engagement in social science classrooms.
- To identify specific methods and practices that foster better retention of social science content.

Research Design

This study employed a qualitative research design to gain in-depth insights into the role of cognitive engagement in retention. The data was collected through semi-structured interviews with 15 social science teachers and focus group discussions with 30 students from secondary schools. Additionally, classroom observations were conducted to identify the strategies in use and their impact on student participation and learning.

Data Analysis and Findings

Thematic analysis was used to interpret the data collected from interviews, focus groups, and observations. The analysis focused on identifying patterns related to the use of cognitive engagement strategies and their perceived impact on retention. Key themes included the use of collaborative projects, the role of discussions in understanding concepts, and the effectiveness of reflective practices.

Interactive Learning Boosts Retention: Teachers reported that activities like debates, role-plays, and group projects helped students retain complex social science concepts by making them more relatable.

Reflective Practices Aid Understanding: Students who maintained reflective journals demonstrated higher retention levels as they revisited and personalized their learning experiences.

Technology Integration: The use of digital tools, such as interactive simulations and online discussion forums, was found to engage students cognitively and support better recall.

Challenges in Implementation: Teachers highlighted constraints such as limited time and resources that hindered the consistent application of cognitive engagement strategies.

Discussion

The findings align with existing research that emphasizes the importance of active participation in learning. Cognitive engagement facilitates deeper processing of information, which is crucial for long-term retention. Social sciences, with their inherently dynamic and interdisciplinary nature, benefit significantly from such approaches. However, challenges like time constraints and the need for professional development indicate that systemic changes are necessary to maximize the potential of cognitive engagement in classrooms.

Conclusion

Cognitive engagement offers a robust pathway to enhance the retention of social science knowledge. By fostering active participation and deeper understanding, these strategies not only

improve academic outcomes but also prepare students for real-world applications of social science concepts. Future research should focus on developing scalable models for implementing cognitive engagement strategies across diverse educational contexts.

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