

ISBN: 978-93-47587-87-0

NEP 2020

A NEW ERA IN INDIAN EDUCATION

Implications for Teachers, Students and Society



Editor-in-Chief

Prof. (Dr.) Datta Patil

Prof. (Dr.) Shivanand Masti

Associate Editors

Dr. Kiran Patil, Shri. Amit Kulkarni,

Smt. Ankita Chopade, Smt. Radhika Hulagabali



Published by: Bhumi Publishing, India

Proceedings book of
One Day National Level Seminar on "NEP 2020: A New Era in Indian Education –
Implications for Teachers, Students, and Society", organized by
Dr. Ghali College, Gadhinglaj, Dist. Kolhapur, M.S. India

In association with
Shivaji University, Kolhapur
(ISBN: 978-93-47587-87-0)

DOI: <https://doi.org/10.5281/zenodo.19150395>

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Bhumi Publishing

March 2026

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Title: NEP 2020: A New Era in Indian Education –

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First Edition: March 2026

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Published by Bhumi Publishing,

a publishing unit of Bhumi Gramin Vikas Sanstha



Nigave Khalasa, Tal – Karveer, Dist – Kolhapur, Maharashtra, INDIA 416 207

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PREFACE

The present volume is a compilation of selected research papers presented at the One Day National Level Seminar on “NEP 2020: A New Era in Indian Education – Implications for Teachers, Students, and Society”, organized by Dr. Ghali College, Gadhinglaj, under the initiative of IQAC on 7th January 2026. The seminar served as vibrant academic platform for educators, researchers, scholars, and students to deliberate upon the transformative vision of the National Education Policy (NEP) 2020 and its far-reaching implications.

The National Education Policy 2020 marks a significant milestone in the evolution of the Indian education system. It envisions an inclusive, flexible, multidisciplinary, and skill-oriented framework that aims to prepare learners for the challenges of the 21st century. The seminar brought together distinguished academicians, policy experts, and practitioners who shared their valuable insights on various dimensions of NEP 2020, including curriculum reforms, integration of technology, teacher empowerment, skill development, equity, and implementation challenges.

This book reflects the intellectual richness and diversity of perspectives presented during the seminar. The contributions included herein address critical themes such as digital transformation in education, reimagining teacher roles, flexible learning pathways, bridging social and digital divides, and building a future-ready workforce. Each paper provides thoughtful analysis and practical suggestions for effectively translating policy into practice.

We sincerely acknowledge the guidance and support of the eminent keynote speakers, resource persons, and dignitaries whose expertise enriched the deliberations. We also extend our heartfelt appreciation to all the contributors for their scholarly efforts and commitment to academic excellence. Special thanks are due to the organizing committee and IQAC for their meticulous planning and successful execution of the seminar.

It is our hope that this publication by Bhumi Publication, Kolhapur will serve as a valuable resource for teachers, students, policymakers, and researchers, fostering meaningful dialogue and inspiring further research in the field of education. May this volume contribute to the realization of the vision of NEP 2020 and the advancement of a progressive, inclusive, and dynamic education system in India.

- Editors

ACKNOWLEDGEMENT

The successful completion of this book, comprising research papers presented at the National Level Seminar on “NEP 2020: A New Era in Indian Education – Implications for Teachers, Students, and Society”, is the result of the collective efforts, support, and encouragement of many individuals and institutions.

We gratefully acknowledge Shivaji University, Kolhapur for granting permission to organize this seminar and for extending financial assistance, which played a crucial role in the successful execution of the event. We express sincere gratitude to Prof. (Dr.) Suresh Gosavi, I/C Vice-Chancellor, Shivaji University, Kolhapur, for his visionary leadership and continuous encouragement in fostering a strong academic and research environment. We are equally thankful to Prof. (Dr.) Jyoti Jadhav, I/C Pro-Vice Chancellor, for her valuable guidance, support, and motivation throughout the course of this work. We extend our heartfelt thanks to Dr. V. N. Shinde, Registrar, Shivaji University, Kolhapur, for his administrative support and cooperation, which greatly facilitated the successful completion of this work.

We express our deepest sense of gratitude to Dr. Satish Shankarrao Ghali, Hon’ble President and all the Directors of Vidya Prasarak Mandal, for their constant encouragement, visionary leadership, and unwavering support in promoting academic and research activities.

We are highly indebted to Prof. (Dr.) Datta Patil, Principal of Dr. Ghali College, Gadhinglaj, for his dynamic guidance, motivation, and continuous support throughout the organization of the seminar and the publication of this volume.

We extend our sincere thanks to the eminent keynote speakers and resource persons for sharing their valuable knowledge, insights, and experiences on various aspects of NEP 2020. Their contributions greatly enriched the academic discussions and added immense value to this publication.

We are thankful to Chief Editor of this publication Prof. (Dr.) Shivanand Masti and Editors Dr. Kiran Patil, Mr. Amit Kulkarni, Miss.Ankita Chopade and Smt. Radhika Hulagabali and all the respectful authors and researchers who presented their scholarly papers and contributed to this volume. Their academic rigor, innovative ideas, and commitment to educational advancement form the backbone of this book.

We also express our heartfelt appreciation to the members of the IQAC committee for their initiative, planning, and coordination in organizing the seminar. Special thanks are due to the organizing committee for their dedicated efforts in ensuring the smooth conduct of the event. We extend our gratitude to all the teaching and non-teaching staff of Dr. Ghali College, Gadhinglaj, for their wholehearted support, cooperation, and tireless work behind the scenes.

Finally, we acknowledge all those who directly or indirectly contributed to the success of the seminar and this publication but whose names may not be mentioned here. Their support is deeply valued and appreciated.

Dr. Shrikant Patil

Co-Convener, NEP Seminar 2026

Lt. Ashvin Godghate

Convener, NEP Seminar 2026

Estd 29-8-1963.

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PRESIDENT'S NOTE

It gives me immense pleasure to extend my heartfelt compliments on the successful publication of the book of research papers presented at the National Level Seminar on "NEP 2020: A New Era in Indian Education – Implications for Teachers, Students, and Society." This scholarly volume is a significant academic contribution reflecting thoughtful deliberations on the transformative vision of the National Education Policy 2020.



I sincerely congratulate the Principal, organizing committee, editors, and all contributors for their dedicated efforts in organizing this seminar and bringing out this valuable publication. The research papers compiled in this book demonstrate academic rigor, innovative thinking, and a deep commitment towards understanding and implementing the reforms envisioned in NEP 2020. Such initiatives play a vital role in bridging the gap between policy and practice and in guiding educators, students, and institutions towards meaningful transformation.

Vidya Prasarak Mandal, established on 20th August 1963 at Gadhinglaj under the visionary leadership of Late Dr. S. S. Ghali, has been committed to spreading quality education in rural and semi-urban areas. With a strong belief that education is the foundation of social awareness and progress, the Mandal has consistently worked towards empowering students through value-based and need-oriented education. Over the years, it has nurtured institutions like Dr. Ghali College, which have become centers of academic excellence and social transformation.

This publication is a proud moment for the Mandal, as it reflects our continued dedication to promoting research culture and academic excellence. I am confident that this book will serve as a valuable reference for academicians, researchers, and policymakers, and will inspire further dialogue and action in the effective implementation of NEP 2020.

I once again extend my best wishes and compliments to all those involved in this commendable endeavor and wish them continued success in their academic pursuits.

Dr. Satish Shankarrao Ghali
President
Vidya Prasarak Mandal, Gadhinglaj



Vidya Prasarak Mandal's
DR. GHALI COLLEGE, GADHINGLAJ

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PRINCIPAL'S NOTE

It gives me immense pleasure to present this note on the successful organization of the One Day National Level Seminar on "NEP 2020: A New Era in Indian Education – Implications for Teachers, Students, and Society" and the publication of the book of research papers presented therein. This significant academic event was organized by Dr. Ghali College, Gadhinglaj, under the initiative of IQAC on 7th January 2026, with the noble objective of deliberating upon the transformative vision of the National Education Policy 2020.



Dr. Ghali College, Gadhinglaj, established in 1984 under the aegis of Vidya Prasarak Mandal, has been a beacon of higher education in the rural region of Kolhapur district. Affiliated with Shivaji University Kolhapur and re-accredited with 'B++' grade by NAAC, the institution has consistently strived to provide quality education to students predominantly coming from rural and socio-economically diverse backgrounds. With student strength of more than 2500, the college offers a wide spectrum of academic programmes including B.A., B.Com., B.Sc., BBA and BCA at the undergraduate level, and postgraduate programmes such as M.A., M.Com. and M.Sc. Additionally, the institute is also committed to run various skill development and career-oriented courses. The institution remains committed to holistic development, skill enhancement, and value-based education.

The National Seminar served as an important academic platform bringing together eminent educationists, researchers, teachers, and students from across the country. The insightful keynote address and expert sessions highlighted critical dimensions of NEP 2020 such as multidisciplinary education, flexibility in curriculum, skill-based learning, integration of technology, and the need for inclusive and equitable education. The deliberations also emphasized the practical challenges and strategies for effective implementation of the policy.

I am particularly pleased to note that the seminar witnessed enthusiastic participation, with a large number of research papers being presented across diverse sub-themes. These scholarly contributions reflect deep engagement with contemporary educational issues and offer valuable perspectives on policy implementation. The publication of this edited volume of research papers is a commendable step towards documenting and disseminating this collective academic effort. It will serve as a useful reference for academicians, policymakers, and students interested in understanding the evolving landscape of Indian education.

The implementation of NEP 2020 from the academic year 2024–25 at the undergraduate level marks a historic shift in our education system. It necessitates a paradigm shift in teaching-learning processes, assessment methods, and institutional frameworks. As educators, it is our responsibility to embrace these reforms with clarity, commitment, and innovation. Our institution has taken proactive steps towards adopting the key features of NEP such as multidisciplinary approach, Academic Bank of Credits, multiple entry and exit options, skill enhancement courses, and outcome-based education.

I extend my heartfelt congratulations to the organizing committee, contributors, editors, and all participants for their dedicated efforts in making both the seminar and this publication a grand success. I am confident that this volume will contribute meaningfully to academic discourse and inspire further research in the field of education.

Prof. (Dr.) Datta Patil
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TABLE OF CONTENT

Sr. No.	Book Chapter and Author(s)	Page No.
1.	A STUDY ON THE INCORPORATION OF THE INDIAN KNOWLEDGE SYSTEM (IKS) IN NEP-2020 Shivanand Masti, Rishikesh Patil, Kirti Kamble and Dhanashree Metake	1 – 4
2.	NEP 2020: CHANGING PERSPECTIVES ON DISTANCE AND ONLINE EDUCATION IN COMMERCE - A CASE STUDY OF SHIVAJI UNIVERSITY, KOLHAPUR P. N. Devali and A. M. Gurav	5 – 14
3.	STUDY ON ROLE OF DIGITAL EDUCATION AND E-LEARNING PLATFORMS IN EDUCATION D. P. Khedkar and D. U. Jadhao	15 – 19
4.	DIGITAL TRANSFORMATION IN EDUCATION FOR SUPERIOR TEACHING AND LEARNING METHODS Anjali Pandurang Patil	20 – 23
5.	DIGITAL TRANSFORMATION IN EDUCATION: OPPORTUNITIES AND CHALLENGES FOR TEACHERS Jyoti S Kawalekar	24 – 27
6.	EDUCATION, EQUITY AND SOCIAL JUSTICE IN THE NEP FRAMEWORK S. R. Sawant	28 – 33
7.	MENTAL HEALTH AND WELL-BEING OF COLLEGE STUDENTS: A PSYCHOLOGICAL ANALYSIS Priti B. Desai	34 – 37
8.	MENTAL HEALTH AND WELL-BEING IN HIGHER EDUCATION: A STUDY IN KOLHAPUR DISTRICT Maruti Hajare	38 – 40
9.	MULTILINGUALISM AND ENGLISH LITERARY STUDIES: NEP 2020'S VISION AND ITS IMPLICATIONS Sandip Balu Parit, Nitin Damodar Mane and Santosh Prabhakar Kamble	41 – 43
10.	NATIONAL EDUCATION POLICY 2020 AND ITS IMPACT ON ZOOLOGY EDUCATION IN INDIA: A SHIFT TOWARDS MULTIDISCIPLINARY AND EXPERIENTIAL LEARNING N. A. Ghulanawar, M. S. Kadam and S. S. Sakhare	44 – 55

11.	IMPLEMENTATION OF THE NATIONAL EDUCATION POLICY 2020 AND LIBRARY SERVICES Rajendra S. Savekar	56 – 61
12.	NEP 2020 AND OUTCOME-BASED EDUCATION IN INDIA: A TRANSFORMATIONAL SHIFT IN TEACHING AND LEARNING PRACTICES N. A. Ghulanawar, K. J. Adate, V. M. Deshmukh and A. S. Kamble	62 – 70
13.	INTEGRATING TECHNOLOGY IN CLASSROOMS – OPPORTUNITIES AND CHALLENGES FOR TEACHERS Amit S. Kulkarni, Madhuri Devarde, Radhika Hulgbali and Shrutkirti Patil	71 – 75
14.	भारतीय ज्ञान परंपरा : समाजशास्त्रीय आयाम फलराणी शिवरामसिंग रजपूत	76 – 79
15.	NEP 2020 मध्ये OE, SEC आणि CC यांची भूमिका: विद्यार्थ्यांच्या कौशल्य विकासातील संशोधन संतोष शहापूरकर	80 – 84
16.	उद्योजकता नेतृत्व विकासामध्ये राष्ट्रीय शिक्षण धोरणाची भूमिका गिरीश पांडुरंग कांबळे	85 – 92
17.	भारतीयांच्या ज्ञानाचे प्रतिक छत्रपती शिवाजी महाराज मधुकर विठोबा जाधव	93 – 98
18.	नेतृत्व आणि उद्योजकता विकास जिनेंद्र के. बिद्रे	99 – 105
19.	विद्यार्थी सक्षमीकरणात डिजिटल शिक्षण व ई-लर्निंग प्लॅटफॉर्मची भूमिका संभाजी शंकर कुरलीकर	106 – 107
20.	शैक्षणिक क्षेत्रातील सार्वजनिक खाजगी भागीदारी डी. एन. महाडिक	108 – 112
21.	समान व सर्व समावेशन शिक्षण अश्विनी मच्छिंद्र तासिलदार	113 – 115

A STUDY ON THE INCORPORATION OF THE INDIAN KNOWLEDGE SYSTEM (IKS) IN NEP-2020

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Abstract

The National Education Policy (NEP) 2020 marks a transformative shift in India's educational framework by foregrounding the Indian Knowledge System (IKS) as a core component of curricular and pedagogical reform. IKS provides a unique opportunity to embed cultural authenticity and practical wisdom into modern learning environments. Its integration into higher education aims to preserve India's ancient intellectual heritage while enriching contemporary education through value-based learning, life skills, traditional crafts, agriculture, wellness practices, and indigenous knowledge. The policy emphasizes the integration of traditional Indian wisdom with modern scientific inquiry, thereby promoting interdisciplinary learning and addressing contemporary societal challenges. Rooted in India's civilizational ethos, IKS advocates a holistic balance between science and spirituality, ethics and practice, and intellectual and physical development. NEP 2020 further promotes values such as empathy, democratic spirit, social responsibility, and scientific temper, while highlighting the role of mother-tongue instruction, physical education, and teachers as facilitators of holistic education. Despite its progressive vision, the effective implementation of IKS faces several challenges, and its long-term impact will depend on sustained institutional support and systematic execution.

Keywords: Indian Knowledge System (IKS), NEP-2020, Vedic Literature, Arts and Culture.

1. Introduction

The Indian Knowledge System (IKS) represents a structured and systematic framework for the intergenerational transmission of knowledge, extending beyond a mere cultural tradition. Rooted in the Vedas, Upanishads, Upavedas, and allied classical texts, IKS integrates *Jnan* (knowledge), *Vignan* (scientific inquiry), and *Jeevan Darshan* (philosophy of life). This knowledge tradition evolved through sustained observation, experimentation, reflection, and critical analysis and has historically influenced education, governance, law, health, arts, language, and commerce.

India's intellectual heritage reflects a holistic worldview that harmonizes material and spiritual pursuits, science and ethics, karma and dharma, and enjoyment with sacrifice. Since the Rigvedic period, Indian education has emphasized moral, intellectual, physical, and spiritual development. This vision was institutionally embodied in ancient centers of learning such as Takṣaśilā and Nālandā, which functioned as globally renowned universities and contributed significantly to world knowledge systems in philosophy, science, Yoga, and Ayurveda.

Recognizing the enduring relevance of this civilizational wisdom, the National Education Policy (NEP) 2020 positions IKS as a guiding principle for educational reform. The policy emphasizes mother-tongue instruction, interdisciplinary research, physical education, and societal well-being, advocating the integration of traditional knowledge with contemporary academic frameworks to address present and future challenges.

Areas of Indian Knowledge System (IKS)

The Indian Knowledge System refers to the vast body of indigenous wisdom, practices, and intellectual traditions developed and preserved across India's diverse cultural landscape. It encompasses domains such as philosophy, science, mathematics, engineering, agriculture, medicine, architecture, psychology, arts, and humanities, reflecting India's long-standing tradition of inquiry and innovation.

IKS represents a dynamic and evolving knowledge framework that integrates ancient and contemporary contributions. Its key characteristics include deep roots in classical texts such as the Vedas and Upanishads, an interdisciplinary orientation, practical relevance to societal challenges, and an emphasis on preservation, documentation, and dissemination of traditional knowledge.

Major domains of IKS include:

- **Science and Technology:** Mathematics, astronomy, metallurgy, engineering, traditional medicine, and agriculture
- **Philosophy and Spirituality:** Advaita Vedanta, Yoga, Buddhism, and other philosophical traditions
- **Arts and Culture:** Classical and folk arts, music, dance, literature, architecture, and craftsmanship

Objectives, Institutional Framework, and Educational Integration

IKS constitutes a validated epistemic framework aimed at preserving India's civilizational knowledge while addressing contemporary societal challenges. Its objectives include safeguarding indigenous knowledge, demonstrating its practical applicability, and fostering a critical yet respectful engagement with traditional wisdom to counter epistemic marginalization. Through interdisciplinary and transdisciplinary research in areas such as holistic health, psychology, neuroscience, environment, and sustainable development, IKS integrates historical insights with modern scientific inquiry through a distinct *Bhāratīya Dṛṣṭi*.

Institutionally, the IKS Cell was established in October 2020 under the Ministry of Education at AICTE, New Delhi. It promotes research, documentation, dissemination, and academic engagement with IKS by supporting IKS centres across disciplines including arts, agriculture, sciences, engineering, management, and economics. The IKS Division facilitates collaborations, funding initiatives, expert groups, and policy inputs for systematic advancement.

IKS is being integrated into school and higher education curricula through experiential learning, indigenous and tribal knowledge inclusion, internships, faculty development programs, and large-scale digitization initiatives. These measures aim to mainstream IKS within modern education while strengthening India's knowledge ecosystem.

Incorporation of IKS in Higher Education Curricula

NEP 2020 emphasizes the integration of IKS across all levels of education to ensure continuity in knowledge transmission. Undergraduate and postgraduate students are encouraged to complete at least 5% of their total credits in IKS, with at least 50% of these credits aligned with the major discipline. IKS courses may be offered in any Indian language.

Faculty capacity building through induction and refresher programs is emphasized to promote academic engagement. The policy also encourages collaboration between artists and higher education institutions by involving *Kala Gurus* in teaching and research. Short-term, credit-based modular programs with multiple entry and exit options are proposed to promote Indian heritage, philosophy, Yoga, Ayurveda, languages, arts, and crafts. Provision is also made for awarding a minor degree upon completion of 18–20 IKS credits.

Mandatory Credit Component

UGC mandates inclusion of 5% IKS-related credits across curricula, while AICTE has introduced IKS courses for first-year engineering students.

Regional Course Design

States and Union Territories are encouraged to document regional cultures, arts, traditions, architecture, languages, and food practices to design localized IKS courses.

Scope of Collaboration

Universities may develop multidisciplinary and international collaborations reflecting India's global civilizational interactions. IKS courses may also be delivered through digital platforms such as SWAYAM and NPTEL.

Experiential Learning

Internships, hands-on workshops, and IKS-themed hackathons are promoted to provide practical exposure and innovation opportunities.

Translation Initiatives

Translation of academic content into Indian languages is encouraged to enhance accessibility and preserve indigenous identity.

Challenges in the implementation

Globalization has led to significant changes in pedagogy, curriculum, and language of instruction, often resulting in cultural and educational imperialism. India's education system, influenced by the Macaulayan model, has marginalized indigenous knowledge, leading to losses in agricultural biodiversity, intellectual capital, and traditional practices.

India's IKS includes over 7,000 medicinal plant species and 15,000 herbal formulations, making it vulnerable to biopiracy and unauthorized patenting. These challenges have intensified concerns over knowledge ownership and cultural marginalization.

Despite its relevance, IKS integration faces challenges such as limited awareness, oral modes of knowledge transmission, lack of standardized curricula, language barriers, colonial biases, and a shortage of trained educators. Addressing these issues requires curriculum development, teacher training, digital documentation, and institutional support.

Conclusion

The integration of Indian Knowledge Systems under NEP 2020 offers significant potential to enhance environmental awareness, cultural understanding, and sustainable problem-solving. While challenges persist, systematic efforts in teacher training, curriculum design, digitization, and policy support can enable meaningful integration. As IKS has evolved over millennia, its incorporation into modern education must be gradual, inclusive, and research-driven to ensure lasting impact.

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**NEP 2020: CHANGING PERSPECTIVES ON DISTANCE AND
ONLINE EDUCATION IN COMMERCE - A CASE STUDY OF
SHIVAJI UNIVERSITY, KOLHAPUR**

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Abstract

The present paper tried to assess the role of CDOE-SUK in enhancing the higher education sector's Gross Enrollment Ratio (GER) to 50% by 2035, which will be adding 3.5 crore seats in higher education. It seems that UGC plays an important role in promoting and regulating distance and online education throughout India. Shivaji University also offers several UG and PG programmes with the use of distance and online education for distance learners. The Government of India initiated NEP 2020, which affects CDOE learners. Considering this, the researcher tried to understand the role of CDOE, Shivaji University, Kolhapur, in the implementation of NEP 2020, which aims to contribute in GER of 50% by 2035.

Keywords: NEP 2020, GER, Commerce Perspective, Skill, Competencies, Role of CDOE-SUK.

1. Introduction

The National Education Policy was to be created by a committee that was established by the Ministry of Human Resource Development and was led by Dr. K. Kasturirangan. Founded in June 2017, the Committee. On May 31, 2019, the committee turned in its final report. The National Policy on Education covers elementary and university education in urban as well as rural India. It is noted that the NEP 2020 is the 21st Century's first education policy in India. The NEP 2020 placed a strong emphasis on the enhancement of each student's creative potential. The foundational ideas of early thinkers like Charaka and Susruta, Aryabhata, Bhaskaracharya, Chanakya, Madhava, Patanjali, Panini, and Thiruvalluvar served as the basis for the NEP 2020. Flexibility, no strict subject divisions, extracurricular activities, multidisciplinary education, a holistic approach, conceptual understanding, critical thinking, ethical values, teachers as the center of the learning process, and the development of a strong public education system were stressed as the key principles of the policy. As a result, the higher education sector would add 3.5 crore seats and the gross enrollment ratio will rise to 50% by 2035. (<https://pib.gov.in/Press>).

2. Importance of the Study

Distance and online education mean learning distantly, without direct contact with the teacher in the regular classroom. Distance education has often been attributed to a number of other terms,

such as distributed learning, e-learning, online learning, etc. The main aim of this paper is to review and discuss the changing relative terms of distance and online education, i.e., correspondence education to online and blended learning. Moreover, this paper tried to highlight the structural changes in commerce education with the effect of the new National Education Policy (NEP 2020), which can impart skills and develop competencies among commerce students. Hence, this research, originally carried out with reference to CDOE, Shivaji University Kolhapur, with the effect of NEP 2020, tried to understand the learning methodology for the implementation of NEP 2020 in the stream of commerce.

3. Scope of the Study

The present research paper tried to focus on effect of NEP 2020 on centre for Distance and online education with reference to Shivaji University Kolhapur. However, this study mainly emphasized on the role of CDOE in implementation of NEP 2020 as well as in this paper purposefully tried to understand the commerce student's perception regarding quality of higher with effect of NEP 2020.

4. About CDOE, Shivaji University, Kolhapur (Maharashtra State)

Shivaji University, Kolhapur has external Examination system from its beginning for those students who are not able to take conventional education. Grants of Distance Education Council (DEC) of Indira Gandhi National Open University (IGNOU), New Delhi, University established Centre for Distance Education (CDE) in the year 2005 and its actual functioning started from the year 2007. This external section is converted into the CDE by offering Self-Instructional Material, Contact Sessions etc. facilities for fulfilling the students' academic needs. The Center for Distance and Online Education (CDOE) offers (Subject to approval from UGC) 02 under graduate courses B.A. & B.Com.; 10 post graduate programmes including M.A. (Marathi), M.A.(Hindi), M.A. (English), M.A. (History), M.A. (Political Science), M.A. (Sociology), M.A. (Economics), M.Com., M.B.A., M.Sc. (Mathematics) and 01 Post Graduate Diploma in Translation. Center for Distance and Online Education proposed to introduce 4 P.G. Programmes through Online mode these are M.B.A., M. Com., M.Sc. (Computer Science), and M.Sc. (Mathematics) (Sources: ccsuniversity.ac.in). The Center for Distance and Online Education (CDOE) plans to start new need –based courses in future. In CDOE, choice-based programmes are available. The center has developed 330 Self Instructional Materials (SIM) & 1500+ Video based Lectures as per students need by the subject experts. Through Distance Education students have received many opportunities for getting the job, promotion in the present job or for appearing for the Competitive examinations. Thus, The Center for Distance and Online Education (CDOE) Shivaji University, Kolhapur, has been working in the area of higher education and taking efforts to make education more fruitful for those who are needy, eager to

earn knowledge and belong to remote area of society with carrying the social responsibility of Shivaji University, Kolhapur (<https://www.unishivaji.ac.in/distedu>).

5. Objectives of the Study

- To enlighten on the role of CDOE-SUK in enhancing GER with effect of NEP 2020.
- To know commerce students awareness regarding NEP 2020.
- To study students perception about NEP affect on higher education especially commerce stream.

6. Hypothesis of the Study:

The CDOE-SUK plays a significant role in enhancing the GER with the implications of NEP 2020.

7. Methodology of the Study

This opinion survey enlightens on the view aspect of NEP 2020 with reference to CDOE- SUK. Under this survey tried to understand changing CDOE in Commerce perspectives with effect of NEP 2020. This study assesses the role of CDOE-SUK in implication of NEP 2020 for the distance learner under Shivaji University, Kolhapur Jurisdictions with reference to Commerce programme i.e. M. Com. This study mainly emphasized on perception of previous academic year 2022-23 and 2023-24 enrolled students. Hence, researcher considers view aspect as awareness regarding NEP 2020, structure change in commerce programme, student support and progression and quality education through CDOE-SUK.

Table 1: Sampling Design

Sr. No.	Class	Academic Year	Total Enrollment (Population)	Sampling Size
1	M. Com II	2022-23 /2023-24	1855	218
2	M. Com I	2023-24	809*	58
	Total		2664	276

(Sources: CDOE Admission Data 2023-23, 2023-24)

It is stated that, the researcher has used a sample calculator for calculating the sample size for the appropriate sample at www.calculator.net and <http://www.raosoft.com>, with consideration of a 95% confidence level and a 5% error. After the determination of sample size, the purposive convenience sampling method was used to understand changing perspectives in commerce education with the effect of NEP 2020.

8. Data Analysis and Interpretation

In present tried to understand the changing perspectives in Commerce education through distance and online mode with effect of NEP 2020. Hence researcher consider few aspects as awareness regarding NEP 2020, ABC ID, major structure changes with consideration of internship and skill courses, students facilities and progression through quality education with

effect of NEP 2020. These aspects analyzed with use of appropriate descriptive and standard statistical i.e. mean, SD and z test for more accurate result.

i. M. Com Programme by CDOE- SUK

Master of Commerce (M.Com.) is a postgraduate-level course ideal for candidates who wish to make a career in banking, finance, cooperative rural development, taxation, business administration, accounting, and commerce sectors. Therefore, the Centre for Distance and Online Education at Shivaji University Kolhapur offers courses in Advance Accountancy, Advance Costing, Taxation, Business Administration, Advanced Banking and Financial System, Cooperation, and Rural Development. Furthermore, it is noted that approx 1500 students are enrolled for M. Com. Programme at every academic year, out of which majority 91% of students choose advanced accounting for their M.Com. programme out of the rest the subjects. Herewith, researcher tried to analyzed the changing perspectives in commerce education with consideration of awareness of NEP 2020, structure changes in curriculum specially internship and skill enhancement course. Moreover, assess the students support and progression facilities as well as quality education with effect of NEP 2020 as follows;

ii. Regarding NEP 2020

Table 2: Awareness NEP 2020

Sr. No.	Awareness	No. of Respondents	Percentages
1	Yes	102	37
2	To Some Extent	66	24
3	No	108	39
4	Cant Say	00	00
5	Total	276	100

(Source: Online Survey and field Work Experience)

Table 2 shows the awareness of commerce students regarding NEP 2020. It is understood that the NEP 2020's emphasis on holistic education, curriculum flexibility, research and innovation, technology integration, international cooperation, entrepreneurship, quality assurance, and teacher preparation. It will change how commerce education is delivered and equip students for the ever-changing education environment. Therefore, mostly students are aware about NEP 2020, while taking admission for Master programme. It noted that majority 37% + 24% (61%) respondents are aware fully and to some extent about NEP 2020. Moreover, it is noted that selected 100% respondents are enrolled M. Com. Programme with effect of NEP 2020. *It indicates mean value 2.09, standard deviation 0.95 and CV 45.31. Moreover, it is noted that proportion z test value 3.61 was higher than z table value i.e. 1.64 ($Z_{cal} > Z_{tab}$) and p value was less than significant level. Thus, it is stated that the preset hypothesis i.e. CDOE-SUK plays a significant role in enhancing the GER with the implications of NEP 2020”.*

Table 3: Awareness about ABC ID

Sr. No.	Aware about ABC ID	No. of Respondents	Percentages
1	Yes	268	97
2	To Some Extent	00	00
3	No	00	03
4	Can't Say	08	00
5	Total	276	100

(Source: Online Survey and field Work Experience)

Table 3 shows the awareness and ABC ID Creation for academic virtual data under NEP 2020. It is noted that the ABC Platform is a digital database of credits used to keep online each student's specific academic credentials. It helps to provide facility for credit accumulation transfer and redemption. Its helps to transfer students academic credit one institute to another as well as one programme to another with respective discipline. Therefore, it is stated that majority 97% commerce students are aware about ABC ID and 100% enrolled students are generate ABC ID through Digi- Locker. *It seems that the mean value 1.90, standard deviation 0.49, CV 25.73. Moreover, it is noted that proportion z test value 15.65 was higher than z table value i.e. 1.64 ($Z_{cal} > Z_{tab}$) and p value was less than significant level. Thus, it is stated that the preset hypothesis i.e. CDOE-SUK plays a significant role in enhancing the GER with the implications of NEP 2020.*

iii. Changing Perspectives in Commerce Education:

Table 4: Internships/Apprenticeships/Project

Sr. No.	Aware about Internships/ Project	No. of Respondents	Percentages
1	Yes	210	76
2	To Some Extent	55	20
3	No	11	04
4	Can't Say	00	00
5	Total	276	100

(Source: Online Survey and field Work Experience)

Table 4 reveals the awareness regarding internships, apprenticeships and project. The project work provides students with valuable opportunities to apply knowledge, develop skills, foster personal growth, and contribute to stream of commerce. Its helps to experiences of students may enrich their educational journey, enhance their employability, and cultivate well-rounded individuals capable of making a positive difference in the world. The majority 76% respondents are aware about internship and 20% aware to the some extent. Moreover, 100% enrolled students are submitting their internship report. *Its mean value 1.29, standard deviation 0.67 and CV*

52.32. Moreover, it is noted that proportion z test value 15.29 was higher than z table value i.e. 1.64 ($Z_{cal} > Z_{tab}$) and p value was less than significant level. Thus, it is stated that the preset hypothesis i.e. CDOE-SUK plays a significant role in enhancing the GER with the implications of NEP 2020”.

Table 5: Completed Skill Enhancement Course

Sr. No.	SEC	No. of Respondents	Percentages
1	Yes	182	83
2	To Some Extent	15	07
3	No	15	07
4	Can't Say	06	03
5	Total	218	100

(Source: Online Survey and field Work Experience)



Photo 1: SEC: Employment and Entrepreneurship Skill and Competencies

(Sources: Sakal News Paper, August 2023)

Table 5 depicted that the Skill Enhancement Course, which is introduced by Shivaji University, Kolhapur as per NEP 2020 in academic year 2022-23. The NEP 2020 emphasizes the importance of vocational education and skill development. It means NEP 2020 emphasizes the importance of apprenticeships and internships to provide hands-on experience and industry exposure to students. This approach allows learners to apply theoretical knowledge in real-world settings, fostering practical skills development and enhancing employability. Therefore, it is found that Shivaji University introduced Skill enhancement Course (SEC) in Syllabus 2022-23 as an effect of NEP 2020. Moreover, it seems that students in the M. Com. Programme are completing SEC as Marketing in Digital World and Excel Skill for Business at semester end I and II. These courses are available through open access i.e. Infosys Spring board. It is noted that majority 83% students are completed enlisting skill enhancement course through online mode. It is also noted that those students who are completed these courses, they got online *certificate of Macquarie University, Sweden, Australia and University of Illinois Urbana* respectively. Its mean value

1.29, Standard Deviation 0.67, and CV 52.32. Moreover, it is noted that proportion z test value 11.92 was higher than z table value i.e. 1.64 ($Z_{cal} > Z_{tab}$) and p value was less than significant level. Thus, it is stated that the preset hypothesis i.e. CDOE-SUK plays a significant role in enhancing the GER with the implications of NEP 2020". Finally, it can be stated that NEP 2020 is a roadmap for student success and 21st century skills.

iv. Students Support and Progression with effect of NEP 2020:

Table 6: Students Support and Progression

Sr. No.	Academic Support and Progression	No. of Respondents	Percentages
1	Yes	141	51
2	To Some Extent	75	27
3	No	44	16
4	Can't Say	16	06
5	Total	276	100

(Source: Online Survey and field Work Experience)

The table 6 reveals the students support and progression at CDOE-SUK. It seems that the CDOE take efforts to provide necessary assistance to students, to acquire meaningful experiences for learning through CDOE mode. The CDOE provide academic facilities and support through e-content, online contact session, use effective online platform like as WebEx, zoom, YouTube Live etc., Therefore, majority 51% and 27% respondents are said that CDOE provide supportive and excellent academic facilities to the students, which helps to academic progression through distance Mode. It is observed that, mostly employed, house wife, retired persons, those who are prepare competitive exam and those who are unable to attain regular college or programme, such students are enrolled under Distance education mode. Hence, mostly 78% students are said CDOE provide adequate facilities and services, which helps to academic progression and sustain in job or business market. Thus, it is mean value 1.29, standard deviation 0.67, CV 52.32. Moreover, it is noted that proportion z test value 9.39 was higher than z table value i.e. 1.64 ($Z_{cal} > Z_{tab}$) and p value was less than significant level. Thus, it is stated that the preset hypothesis i.e. CDOE-SUK plays a significant role in enhancing the GER with the implications of NEP 2020".

Table 7 shows that the opinion of students regarding quality education in commerce stream with effect of NEP 2020. It is stated that a good higher education must promote individual success and enlightenment, it must enable economic independence while preparing students for more fulfilling and meaningful personal and professional roles. It is also noted that majority 62%+ 26% students are agreed to take or acquire quality education with implementation of NEP 2020, followed by least do not agreed. It is mean value 1.29, standard deviation 0.67, CV 52.32. Moreover, it is noted that proportion z test value 12.64 was higher than z table value i.e. 1.64

($Z_{cal} > Z_{tab}$) and p value was less than significant level. Thus, it is stated that the preset hypothesis i.e. CDOE-SUK plays a significant role in enhancing the GER with the implications of NEP 2020”.

Table 7: Quality Education with effect of NEP 2020

Sr. No.	Quality Education	No. of Respondents	Percentages
1	Yes	171	62
2	To Some Extent	72	26
3	No	17	06
4	Can't Say	16	06
5	Total	276	100

(Source: Online Survey and field Work Experience)

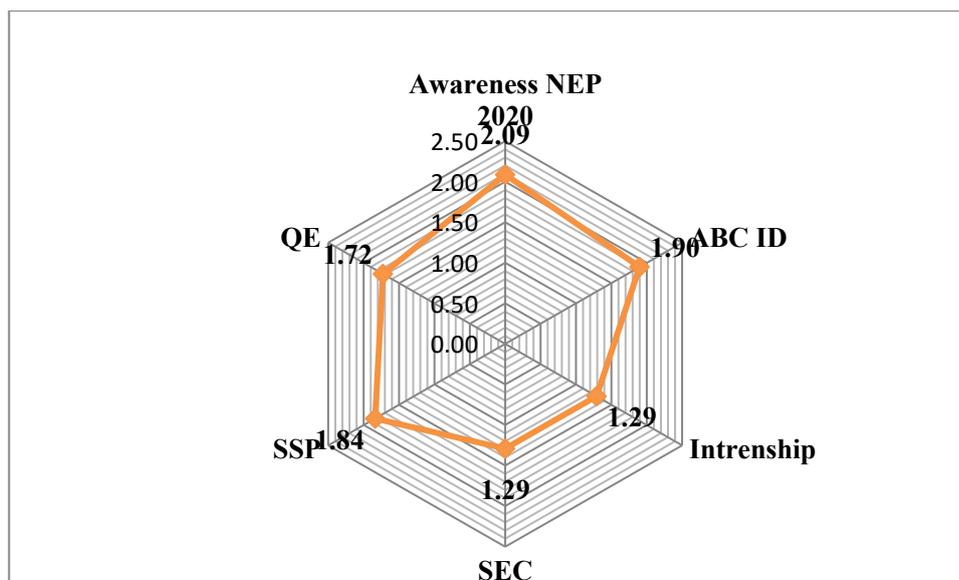
It is also interpreted that the NEP 2020 focuses more on practical learning than theoretical learning. The basic aim of the new education policy is to provide quality education for the betterment of social and economic development. Considering this, teachers may use a variety of learning methodologies. It means NEP 2020 will concentrate more on value education, which considers ethics, moral value, and socio-economic development. NEP-2020 has given emphasis on conceptual understanding, creativity and critical thinking, human ethical values, and constitutional values. Similarly, CDOE- SUK introduce syllabus 2022-23 with effect of NEP 2020 and incorporate skill-based value added courses, which enrich the academic profile of students and students can get skill with their practical concept. Hence, majority students are agreed to take quality higher education with effect of NEP 2020.

Table 8: Role of CDOE in enhancing GER with effect of NEP 2020

Sr. No.	Role of CDOE	Mean Value
1	Awareness NEP 2020	2.09
2	ABC ID	2.00
3	Internships/Apprenticeships/Project	1.29
4	Skill Enhancement Course	1.29
5	Students Support and Progression	1.84
6	Quality Education	1.72

(Sources, Table 2,3,4,5,6, 7 and field Wok)

Table 8 and Radar 1 shows the role of CDOE-SUK in enhancing GER with effect of NEP 2020. It is identify that the institutions will have the option to run open and Distance education hrough online programmes as well as blended mode. It is stated that CDOE play an significant role in the contribution of GER upto 50% by the year 2035. Hence it is need to use measures such as online courses and digital repositories, funding for research, acadamic support services, choice base credit and use of MOOCs, and moodle platform etc., and it will be taken to ensure it is at par with the highest quality in-class programmes (<https://www.ugc.gov.in>).



Radar 1 Role of CDOE in enhancing GER with effect of NEP 2020

(Sources, Table 2,3,4,5,6, 7 and field Wok)

In present study research tried to assess role of CDOE in enhance the GER with effect of NEP 2020. Hence researcher consider some measures as awerness programme, ABC ID, internship and apprenticeship, onjob training for skill development, SEC, students support and progression and quality education by CDOE, it mean value stated as awareness NEP 2020 mean value is 2.09, followed by ABC ID mean value 2.00, Internships/Apprenticeships/Project mean value 1.29, Skill Enhancement Course and its mean value 1.29, 1.84 as Students Support and Progression, 1.72 as Quality Education. Moreover, it is referred that the Distance and Online Learning have more flexible such as access, equity, quality and affordability. The NEP intends to enhance the Gross Enrolment Ratio to 50% by 2030 and comply with Sustainable Development. Distance education offers flexibility, allowing learners to study at their own pace and on their own schedule. Thus, it is stated that distance and online education can be easily accessed from anywhere while attending a regular classroom. It implies that those who wish to continue their education in accordance with their needs have access to distant and online learning.

9. Observation

It is observed that CDOE –SUK rigorously implement NEP 2020 and its effect major structure, curriculum changes are taking place. Therefore, during field work noted some observation as follows;

- Rigorously implement NEP 2020 by CDOE-SUK.
- Major Curricula and Structure changes are taking place in academic proramme considering quality education.
- 99%+ students are generating their ABC ID for credit deposited and transfer.
- CDOE-SUK students are use NPTL- SWYAM as well as Infosys Spring Board platform for completion SEC programme.

- It is need to more technological intervention.
- It should change perception toward CDOE-SUK at college and study centre level.
- More Industrial and CDOE collaboration essential.
- CDOE -SUK use of social media as like whats app, face book, linked in etc., but effective use essential.
- Need to conduct effective awareness programmes regarding NEP 2020.

In spite of above observation, it is stated that CDOE has more prospect in coming future, which significantly contribute in GER 2019 as said objectives.

10. Result and Discussion

From the overall discussion it is found that, CDOE-SUK implement curriculum as per guidelines of NEP 2020, where various structure changes are taking place. It is also noted that SEC programme and internship or on job training budding the employability and entrepreneurship skills among the commerce students. It is also stated that after corona pandemic period increase trend to take blended education as distance and online mode. It causes increase students enrollment with distance mode. Therefore, as per NEP 2020 implement syllabus, where seems that the structure changes as major, minor course, credit, SEC, internship and on job training etc. Hence CDOE SUK takes rigorously efforts to offers course through blended mode. It means provide online education through online platform, create mooc, moodle and mainly emphasis on quality education. It is also noted that CDOE SUK use open resources and motivate to students for online course. Its result in academic year approx 1855 students effectively access Infosys Spring board and successfully completed SEC programme as Marketing in digital world, excel skill for business etc. Moreover 99% students are generating their ABC ID for credit transfer and credit gain. The CDOE- SUK rigorously implements all initiatives with effective use of social media and online platform with effect of NEP 2020. Thus, it is stated that all CDOE-SUK initiatives and efforts are enhancing GER and it contribute in National Education Policy. Moreover, considering overall results and on the basis of opinion of respondents *it is stated that the preset hypothesis i.e. CDOE-SUK plays a significant role in enhancing the GER with the implications of NEP 2020 was accepted.*

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STUDY ON ROLE OF DIGITAL EDUCATION AND E-LEARNING PLATFORMS IN EDUCATION

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Abstract

In the digital era, traditional education has crossed the classroom limit. Digital education system and e-learning platforms have come out as a changing tool that capable to the students' socially, academically and professionally. This research investigates about the impact of e-learning on the students' engagement, personal education, digital sources availability, skill development and lifetime education. It also highlights the challenges facing before the digital education and suggests recommendations for utilizing its potential more effectively. The digital education and e-learning platform have made a revolutionary change in the area of education. Digital and e-learning platform have expanded education across the traditional classroom limit. Easy availability of the internet and innovative smart devices and gadgets, education has to be made more flexible and accessible. In the digitalisation era, every learner who is from rural and remote area now can easy access the new quality educational platforms. Digital education and e-learning platforms allow students to learn their convenience. Virtual classrooms, online lectures, quizzes, e-notes, etc. make education more effective and interactive. Digital education and e-learning platforms encourage independent thinking and self-learning. It helps students to keep control on their personal educational life. Various online courses provide skill-based learning platforms to the students. Till the academic year 2019-20, there was not extended any e-learning platform in the education field, during the pandemic period of COVID-19, digital education has provided e-learning platforms which was alternative to classroom learning. Its continue support to the education in challenging situation. Artificial Intelligence and data analytics tolls are included in the term of advance technology. Therefore, the most important role of the digital education is to empower academically to the students.

Introduction

The dynamic advancement of digital information and communication technology has remarkably transformed in the education sector. It gives the stand-up e-learning platforms and digital education as a powerful tool to student empowerment. Online resources and virtual classrooms help to modern teaching and learning method across the traditional classroom situations. E-

learning platforms like Learning Management System (LMS), MOOCs, various mobile learning app, virtual classrooms, and etc. is giving easy accessible and personalized opportunities to students. These all platforms help students to empower self-learning enhancing digital education and e-learning literacy and growing independent, personal thinking and problem solving skills. Further, digital education removes socio-economic and geographical obstacles from the various regions such as rural and semi-urban areas, allowing quality education to the students anytime and anywhere. Multimedia content, interactive tool and real-time evaluation improve learning outcomes and engagement among the students. In the recent trends, lifelong digital education and e-learning platforms provide skill based education according to the global needs and demand. Education is the basic pillar of personal and social development. Due to the progress of dynamic technology, traditional teaching methods have been replaced by digital education and e-learning platforms. Digital Education means use of technology in teaching and learning, whereas e-learning platform provide interactive learning experience through online education and learning tools.

Conceptual Framework

Definition of Digital Education: “Digital education refers to use of online resources, digital technology, mobile applications to support, deliver and further improve the teaching and learning process. Its jump beyond the traditional classroom methods and include digital technology tools and learning platforms to improve flexible, more interactive and learning-centric. ”

Digital education includes the following components:

1. Online Learning Platforms and Learning Management System (LMS)
2. Video Conferences, Digital Learning Tools, and e-notes.
3. Virtual Classroom and Direct Communication Tools.
4. Interactive Multimedia tools.
5. Quizzes, Instant Feedback Technic and Online assessment.
6. Mobile Learning and cloud-based learning tools.

These all elements have made easy and more effective digital education as per the students need.

Objectives of the Study

1. To study the role of digital education and e-learning platforms in growing students' approach to motivation and quality education.
2. To analyse e-learning platforms how it contributes to student empowerment through skill development, self-paced learning.

Research Methodology

In this research study uses a descriptive research design to examine the role of e-learning platforms and digital education in student empowerment. This research design helps in knowing students' perceptions, usage patterns and the effect of digital learning tools on academic

performance and learning outcomes. This present research study is based on secondary sources of the data which is collected through websites, newspaper, magazines, articles, books and journals etc.

Role of Digital Education and E-Learning Platforms

- **Enhanced Participation:** E-learning platforms notably enhance student participation and motivation by using interactive and learner-centric tools. In the digital era virtual laboratories, gamified learning modules, interactive quizzes and simulations, facilitate progressive and effective learning. Virtual labs provide the students secured digital environment to perform experiments and improve conceptual understanding. Interactive approaches create learning extra enjoyable, growth participation in students.
- **Skill Development:** E-learning platforms create skill-based courses according to the industrial needs and allow to students. Students can assimilate technical skills through Artificial Intelligence, coding, Programming and data science. Along with that, learners emphasize soft skill development like leadership, communication skills, organisational skills, problem-solving and critical thinking.
- **Flexibility and Time Management:** Students can easily learn and balance their academic studies with family responsibilities, part-time jobs or extracurricular activities. Due to digital platforms, study materials are easily available anytime and anywhere and students can study at their convenience time.
- **Collaborative Learning:** E-learning platforms stimulate cooperate and social learning through discussion forum, group assignment, virtual classrooms, peer reviews, and live webinars. These tools motivate students to participate in academic discussions, exchange ideas and work together on projects. Collaborative learning focus on peer learning, communication skills and teamwork, which help to develop significance social and personal skills required in both professional and academic fields.
- **Continuous Assessment and Feedback:** The most important features of e-learning platforms are continuous evaluation and receiving on-time feedback. The personal evaluation system and tools require students to present their understanding and express their knowledge directly. Teachers can give real-time feedback and personally guidance to students. This continuous evaluation motivates promotes accountability, self-assessment, and provides regular support to learners.

E-Learning Platforms:

E-learning platforms are technology-based systems that include the following functions-

- **Store Curriculum Content:** Digital Education and E-learning platforms availing centralized digital platform and space to keep course and study materials like-books, videos, presentations, lecture notes and reference study materials. This makes educational

resources well-organized, easily accessible and available for use at any time. It also protects various institutions from any kind of threat, allowing them to securely store their important data.

- **Track Student Progress:** E-learning platforms allow for continuous monitoring of students' performance and progress through various sources like online assessments, attendance records, assignment completion records, and progress reports. E-learning platforms allow teachers to find and identify students' weaknesses while also providing time-to-time feedback to encourage students to observe their own academic progress.
- **Facilitate Teacher-Student Interaction:** E-learning platforms give the most significance opportunities to the students and teachers for improving their interaction through group discussion, video conferencing, email and communication technique and tools. E-learning education to create innovative learning opportunities for the teachers and students improve their virtual learning and education environment.

Conclusion

E-learning platforms and digital education have brought about a major revolutionary change in students' learning methods. Today, digital education is widely prevalent in the education sector, but there is a significant disparity between the educational methods provided to rural and urban students. With appropriate policy reforms at the government level, the digital education system can be further strengthened. Digital education helps students succeed effectively in global competition by providing them with confidence, technical skills, and autonomy.

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DIGITAL TRANSFORMATION IN EDUCATION FOR SUPERIOR TEACHING AND LEARNING METHODS

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Abstract

Digital Transformation in Education is effectively utilized for enhanced teaching and learning methods. It is incorporated technology to improve teaching, learning and administrative processes or methods. These methods are used in educational Institute to adopt new trappings for well interaction with students. In this education online learning platforms, google class rooms, new softwares of office data analysis, microphotography practicals of Botany. PDF notes, study tour reports power point presentations, whats app groups for communication with students are used. The COVID-19 pandemic further accelerated the adoption of online learning, bringing digital education to the forefront. In this context, the role of digital tools in enhancing university-level education has become increasingly relevant.

Keywords: Digital Transformations, Education, Teaching-Learning Process.

Introduction

Making students globally competent is one of the major objectives National Education Policy (NEP) 2020. Keeping in mind, the recent changes and trends in higher education network Resource Centre, INFLIBNET, Wi-Fi facility, VPN connections etc. Advanced resources must be available in the campus. Digitalization has emerged as a revolutionary force in higher education worldwide, particularly in developing nations like India. With the introduction of the National Education Policy (NEP) 2020 and rapid technological advancements, Indian universities are increasingly integrating digital tools into their revised syllabus frameworks. This article explores the current state of digital education in Indian universities, focusing on the various methods utilized in the teaching and learning processes for graduation education systems. This paper deals with the Microphotography, e-Herbarium of the rare or seasonal plant specimens, Study tour reports and photography of the plant specimens, graphical presentations, Power point presentations of the topics, Whats app groups- online learning platforms conduction of the tests filling of the feedback forms, PDF notes, e-banking methods- RTGS process or Google pay apps for money transfer, Modern administrations-data driven insights -data privacy and security, Occasion for the students like online learning opportunity for the students are utilized in the teaching and learning processes. With sustained effort, digital education can become a powerful tool in democratizing higher education across India.

Methods

To enhance the learning outcomes for the students improved technologies are used in the digital transformation in Educational Institutes. Some commonly trained methods in the arts, commerce and science faculties for online collaboration with students are mentioned as below-

1. Microphotography: It is the art of taking pictures of very small objects. A good microscope, a nice micro-preparation, a good camera, editing software is required for this microphotography practical. Take photomicrograph of specimen like permanent slide or fresh preparation of any plant part transverse or longitudinal section showing cellular details or angiospermic structures with digital camera or mobile. Transfer it to computer or in mobile. Edit it with any suitable software such as Photoshop or Microsoft photo editor or Microsoft paint. Label the figure and specifications observed in the specimen. Take a print and add to journal for long term preservation.

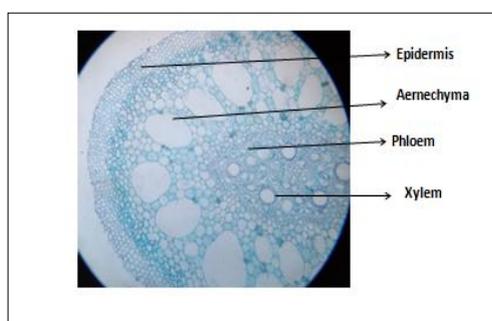


Figure 1: Microphotograph of transverse section of Hydrilla stem

2. Electronic or Digital Herbarium of the Rare or Seasonal Plant Specimens: An online herbarium with preserved plant specimen photo and recorded information is known as a Electronic or digital Herbarium. This plant study includes habit, common name, scientific name, family, genus, species, locality, name of collector, soil type and identification notes. Morphological and anatomical plant study is possible by using electronic or digital Herbarium of the rare or seasonal plant specimens. Click on links Linnaean Herbarium, JSTOR, Herbarium JCB, Google app. to collect plant information.



Figure 2: Electronic or digital Herbarium of the plant specimen

3. Study Tour Reports and Photography of the Plant Specimens, Graphical Presentations:

Plant information and uses study tour reports and photography of the plant specimens, graphical presentations are shared with the help of digital transformation in educational institutes is successfully utilized for enhanced teaching and learning methods.

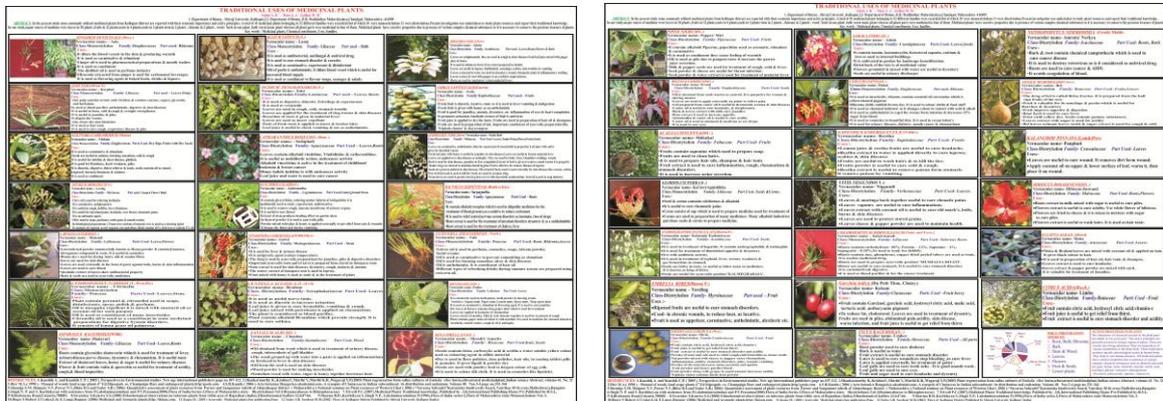


Figure 3 and 4: Digital charts of the plant specimen

4. Power Point Presentations of the Topics: An online note of the topic, diagrams with neat labels and titles, plant specimen photo in addition to related information in the form of slide show is known as a Power point presentation. This method is useful for students studies, seminar and conference presentations.

Cell cycle
 1. The interphase which is a period of non apparent division. 2. The period of division - During this division the distinct changes occurs and they can be observed by light microscope. The interphase is the resting phase and a cell spends most of its life span in this phase. During interphase many biochemical activities occur which are required by cell to undergo successful division. The interphase consists of G₁, S and G₂ phase. During S phase synthesis of DNA molecule takes place. Before and after S phase there are two gap phases G₁ and G₂ phase. In the gap periods there is no synthesis of DNA. The cell cycle shows four phases phase, G₁, S phase, G₂ phase and division phase. The cycle is controlled by both nucleus and cytoplasm. In multicellular system some cells after completion of their growth become permanent and become arrested at specific point in G₁. These cells with arrested growth remain withdraw from the cell cycle in G₀ state. In the unicellular organisms the cell cycle continues and every cell division gives rise to new generation.

Fig 1.4 Diagrammatic representation of mitotic cycle G₁+S+ G₂ = Interphase
 M- Mitotic phase

Khedut Shikshan Mandal's
R.B. Madkholkar Mahavidyalaya, CHANDGAD
 Tal: Chandgad Dist: Kolhapur (Maharashtra)

DEPARTMENT OF BOTANY

Wall Paper Presentation & Demonstration on Mushroom Cultivation

President :- Dr. S. D. Goral
 Principal, R.B.M. College

20 March 2025
 Organizers :- Botany staff & Bsc I, II & III students

Figure 5 and 6: Power point presentations of the topics

5. WhatsApp Groups: Online learning platforms are provided for students. Conduction of the tests, filling of the feedback forms, online lectures PDF notes or tree diagrams or power point presentations of the topics, diagrams and photographs of plants are shared with the students.

6. E-Banking Methods: NEFT-National electronic fund transfer or RTGS- Real time gross settlement systems or Google pay apps- These processes are used for the money transfer process.

7. Modern Administrations: Data driven insights are used to store important data providing facility of the privacy and security

8. Occasion for the Students: Online learning opportunity is provided to the students preparing You tube videos of the topics.

9. E –Books Repository: Access refers to the availability and reach of digital infrastructure and educational resources. Expansion of Internet and Devices is one of the valuable steps in the digital transformation. Over 700 million internet users in India doing educational, cultural, social work with significant penetration in urban and semi-urban areas have allowed many students to access digital learning. Government Initiatives Platforms like SWAYAM, DIKSHA, and NPTEL provide free courses from leading institutions. Digital Libraries and MOOCs, Libraries like National Digital Library of India (NDLI) offer free access to millions of books and journals.

Botany Online by Alice Bergfeld, Rolf Bergmann, Peter v. Sengbusch - University of Hamburg, 2003. This hyper text book covers all plant anatomy, classic genetics, organic chemistry and plant biochemistry, intercellular communication, interactions between plants, fungi, bacteria, and viruses, evolution, and a part of ecology.

Conclusion

Digitalization is transforming the educational landscape in Indian universities by breaking barriers and enhancing learning experiences. While significant strides have been made under NEP 2020, digital tools such as Google Classroom, new software for office and data analysis, and microphotography in Botany practicals are being widely used. PDF notes, study tour reports, and topic-wise notes from beginning to end through PowerPoint presentations, along with WhatsApp groups, e-herbarium, e-books, YouTube videos, and journals, are also used for communication with students. With sustained effort, digital education can become a powerful tool in democratizing higher education across India.

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DIGITAL TRANSFORMATION IN EDUCATION: OPPORTUNITIES AND CHALLENGES FOR TEACHERS

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Abstract

The rapid advancement of digital technologies has significantly transformed the educational landscape, redefining teaching–learning processes across the globe. Classrooms are no longer confined to chalkboards and textbooks; instead, they have evolved into dynamic spaces enriched with digital tools, online resources, and interactive platforms. This paper explores the opportunities and challenges associated with integrating technology in classrooms from a teacher's perspective. It highlights how technology enhances engagement, inclusivity, and skill development, while also examining practical difficulties such as digital divide, lack of training, infrastructure constraints, and increased workload. The paper adopts a human-centered approach, emphasizing the role of teachers as facilitators of meaningful learning rather than mere users of technology. Suggestions for effective integration and policy-level support are also discussed to ensure sustainable and equitable technology-enabled education.

Keywords: Educational Technology, Digital Classrooms, Teacher Challenges, Blended Learning, ICT in Education.

Introduction

Education in India is undergoing a significant transformation driven by policy reforms and technological advancement. The National Education Policy (NEP) 2020 envisions an education system that is holistic, multidisciplinary, inclusive, and technology-enabled. In this context, the integration of technology in classrooms is not merely an instructional innovation but a strategic requirement to achieve national educational goals.

NEP 2020 emphasizes the use of digital tools to improve access, equity, quality, and accountability in education. Initiatives such as online learning platforms, virtual laboratories, digital repositories, and blended learning models have been encouraged to enhance teaching–learning processes in Indian higher education institutions. Teachers are positioned at the core of this transformation, entrusted with the responsibility of effectively integrating technology while preserving pedagogical values and learner-centric approaches.

This paper examines technology integration in classrooms through the lens of NEP 2020, highlighting opportunities and challenges specific to the Indian higher education context. It

draws attention to the realities faced by teachers in diverse institutional settings, including autonomous colleges, rural institutions, and resource-constrained environments.

Concept of Technology Integration in Education

Technology integration in education refers to the purposeful use of digital tools, resources, and applications to enhance teaching and learning outcomes. It goes beyond the mere use of computers or projectors and involves aligning technology with curriculum objectives, pedagogy, and assessment methods. Examples include:

- Use of smart boards and multimedia presentations
- Learning Management Systems (LMS)
- Online assessments and digital feedback tools
- Virtual laboratories and simulations
- Educational apps and collaborative platforms

Effective integration emphasizes learning goals rather than technology itself, ensuring that digital tools serve as enablers of deeper understanding.

Opportunities of Integrating Technology in Classrooms

The National Education Policy 2020 identifies technology as a key enabler for transforming teaching and learning processes. Several opportunities emerge for teachers when technology integration aligns with NEP 2020 principles.

a) Enhanced Student Engagement through Experiential Learning

NEP 2020 advocates experiential, inquiry-based, and competency-driven learning. Technology-supported tools such as virtual simulations, multimedia content, and interactive platforms enable experiential learning even in large classrooms. Teachers can move beyond rote methods and promote conceptual understanding and curiosity-driven learning.

b) Personalized and Flexible Learning Pathways

In line with NEP 2020's focus on learner-centric education, digital platforms support personalized and self-paced learning. Massive Open Online Courses (MOOCs), SWAYAM, and Learning Management Systems allow students to choose learning pathways based on their interests and abilities, thereby reducing dropouts and enhancing learning outcomes.

c) Democratization of Quality Education

Technology bridges geographical and socio-economic gaps by providing access to quality educational resources. National digital initiatives such as DIKSHA, National Digital Library of India (NDLI), and virtual labs empower teachers to bring high-quality content into classrooms, particularly benefiting institutions in remote and rural regions.

d) Promotion of Multidisciplinary and Skill-Based Education

NEP 2020 strongly promotes multidisciplinary education and skill development. Technology facilitates interdisciplinary learning through collaborative projects, data-driven assignments, and exposure to emerging fields such as artificial intelligence, data analytics, and environmental sustainability.

e) Inclusive Education and Universal Access

Assistive technologies, online assessments, and multilingual digital content support inclusive education as envisaged by NEP 2020. Teachers can accommodate diverse learners, including students with disabilities and first-generation learners, fostering equity and social justice in higher education.

Challenges Faced by Teachers in Technology Integration

Despite strong policy support under NEP 2020, teachers in Indian higher education institutions encounter several challenges in implementing technology effectively.

a) Digital Divide and Infrastructure Disparities

The digital divide remains a significant concern in India. Variations in internet connectivity, availability of devices, and institutional infrastructure hinder uniform implementation of technology-enabled education. Teachers in rural and semi-urban colleges often struggle to adopt digital tools consistently.

b) Need for Continuous Professional Development

NEP 2020 emphasizes continuous professional development (CPD) for teachers; however, structured and hands-on training opportunities remain uneven. Many teachers lack confidence in using advanced digital tools, leading to limited or superficial integration of technology.

c) Curriculum Rigidities and Assessment Practices

Although NEP 2020 calls for competency-based assessment, existing examination-oriented systems often restrict innovative teaching practices. Teachers find it challenging to align technology-driven learning activities with traditional assessment frameworks.

d) Increased Academic and Administrative Load

Teachers are expected to manage digital platforms, prepare e-content, conduct online assessments, and maintain academic documentation. Without adequate institutional support, this additional workload may lead to stress and reduced teaching effectiveness.

e) Ethical and Pedagogical Concerns

Ensuring academic integrity, data privacy, and responsible use of technology poses ethical challenges. Teachers must guide students in digital citizenship while maintaining meaningful human interaction in classrooms.

Role of Teachers in Technology-Enabled Classrooms

NEP 2020 redefines the role of teachers as facilitators, mentors, and lifelong learners. In technology-enabled classrooms, teachers are expected to integrate pedagogy, content, and technology in a balanced manner.

Teachers play a critical role in:

- Designing outcome-based and competency-driven learning experiences
- Integrating Indian knowledge systems and local context using digital resources
- Mentoring students in ethical, critical, and responsible use of technology

- Engaging in continuous professional development and reflective teaching practices

Thus, while technology acts as an enabler, the teacher remains the cornerstone of quality education.

Strategies for Effective Technology Integration

- Continuous professional development and hands-on training for teachers
- Institutional support through infrastructure and technical assistance
- Blended learning models combining traditional and digital methods
- Clear policies on digital usage and online safety
- Collaborative learning communities among teachers

Conclusion

The integration of technology in classrooms, when aligned with the vision of the National Education Policy 2020, has the potential to transform Indian higher education into a more inclusive, flexible, and learner-centric system. Technology offers powerful opportunities for enhancing engagement, personalization, and skill development; however, its success depends largely on teachers' preparedness, institutional support, and policy implementation at the grassroots level.

Addressing challenges such as the digital divide, training gaps, and workload pressures is essential to realize the objectives of NEP 2020. A balanced approach that blends traditional pedagogical strengths with modern digital innovations will ensure sustainable and meaningful educational reform. Ultimately, technology should strengthen—not overshadow—the human values of education envisioned by NEP 2020.

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EDUCATION, EQUITY AND SOCIAL JUSTICE IN THE NEP FRAMEWORK

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Abstract

This paper presents a comprehensive analysis of education, equity, social justice in NEP framework. The National Education Policy (NEP) 2020 frames education as the "single greatest tool for achieving social justice and equality" and aims for inclusive and equitable quality education by 2030. For a paper publication, a detailed analysis should cover the policy's specific provisions, its underlying philosophy, implementation challenges, and opportunities for promoting equity and social justice. The NEP 2020 outlines several key strategies to bridge social category gaps and ensure equal opportunities for all Socio-Economically Disadvantaged Groups (SEDGs), which include gender identities, socio-cultural identities (SC, ST, OBC, minorities), geographical identities (rural/remote areas, aspirational districts), disabilities, and socio-economic conditions. The New Education Policy 2020 aims to facilitate an inclusive, participatory and holistic approach, which takes into consideration field experiences, empirical research, stakeholder feedback, as well as lessons learned from best practices. The success of the NEP rests heavily on effective implementation, adequate public funding (targeting 6% of GDP), strong local support, and continuous monitoring to translate policy goals into tangible social justice and equal opportunity for all learners. It is a progressive shift towards a more scientific approach to education. The prescribed structure will help to cater the ability of the child – stages of cognitive development as well as social and physical awareness. If implemented in its true vision, the new structure can bring India at par with the leading countries of the world.

Keywords: Education, Equity, Social Justice, NEP Framework.

1. Introduction

Education has always been a key driver of social change in India. From Macaulay's colonial education policy to the Kothari Commission's recommendations, every shift in education has shaped the way Indian society functions. In 2020, the Government of India approved the New Education Policy (NEP 2020), replacing the 34-year-old National Policy on Education (1986). It promises to transform learning by focusing on holistic, flexible, and multidisciplinary approaches aligned with the needs of the 21st century.

This ambitious policy has a cost to be paid and the rest of the things dwells on its implementation in letter and spirit. Public investment is considered extremely critical for achieving the high-quality and equitable public education system as envisaged by the policy, that is truly needed for India's future economic, social, cultural, intellectual and technological

progress and growth. The success of the NEP rests heavily on effective implementation, adequate public funding (targeting 6% of GDP), strong local support, and continuous monitoring to translate policy goals into tangible social justice and equal opportunity for all learners.

Key Provisions for Education Equity and Social Justice

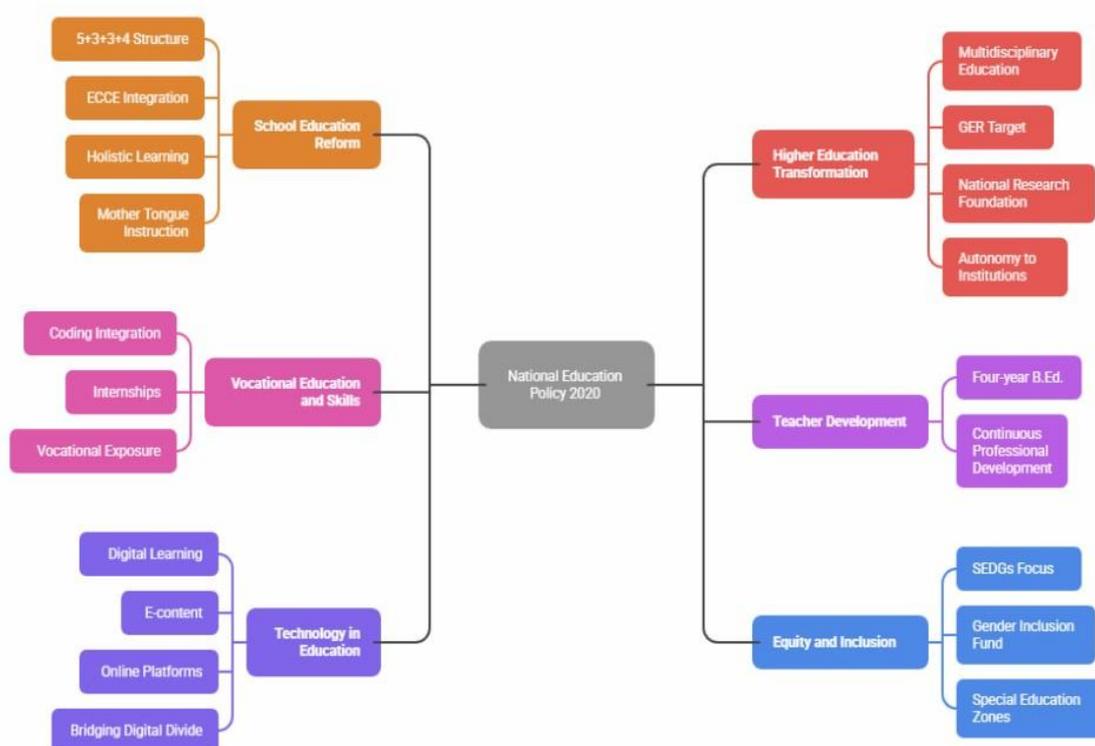
The NEP 2020 outlines several key strategies to bridge social category gaps and ensure equal opportunities for all Socio-Economically Disadvantaged Groups (SEDGs), which include gender identities, socio-cultural identities (SC, ST, OBC, minorities), geographical identities (rural/remote areas, aspirational districts), disabilities, and socio-economic conditions.

- **Socio-Economically Disadvantaged Groups (SEDGs):** The policy identifies SEDGs as a broad category requiring targeted interventions to address disparities in access, participation, and learning outcomes.
- **Gender Inclusion Fund (GIF):** A dedicated fund to support girls and transgender students in obtaining quality education, including vocational education, through targeted schemes and infrastructure improvements (e.g., proper sanitation, bicycles for transport).
- **Special Education Zones (SEZs):** The declaration of regions with large populations from educationally disadvantaged SEDGs as SEZs, where all schemes and policies are implemented with additional concerted effort and resources.
- **Mother Tongue Instruction and Multilingualism:** Emphasizing instruction in the home/local language/mother tongue until at least Grade 5, and preferably until Grade 8 and beyond, to enhance comprehension, reduce dropout rates, and respect linguistic diversity.
- **Holistic and Flexible Curriculum:** A flexible, multidisciplinary curriculum (the new 5+3+3+4 structure) that breaks down rigid subject silos, allows student choice, and promotes critical thinking and 21st-century skills, making education more relevant to diverse contexts and aspirations.
- **Inclusive Infrastructure and Support:** The policy calls for barrier-free physical infrastructure, the provision of assistive devices and appropriate technology for children with special needs (CWSN), and the recruitment of additional special educators and counsellors in school complexes.
- **Digital Inclusion:** Emphasis on leveraging technology through platforms like DIKSHA and SWAYAM to improve access and quality, while acknowledging the need to bridge the "digital divide" in rural and unprivileged areas.
- **Teacher Training and Sensitization:** A focus on robust teacher education and training programs that foster respect for diversity, inclusion, and human/constitutional values like empathy, equality, and justice.

2. Existing Studies

Existing academic literature highlights NEP 2020 as a transformative shift toward equity, specifically through its focus on Socio-Economically Disadvantaged Groups (SEDGs). Scholars generally praise the policy's structural interventions, such as the Gender Inclusion Fund and the emphasis on mother-tongue instruction, which research shows reduces dropout rates among marginalized learners. However, a significant body of recent study warns of a growing "digital divide," arguing that heavy reliance on online learning may exclude students in rural or low-income areas. Furthermore, critics frequently point out that while the policy is vision-heavy, it lacks a legislative roadmap to enforce the Right to Education (RTE) Act and fails to provide a concrete timeline for reaching the long-promised 6% GDP expenditure on education.

Key Salient Features of NEP 2020



a) School Education Reform

- **5+3+3+4 Structure:** Replacing the old 10+2 system, NEP introduces a new curricular structure corresponding to ages 3–18 (Foundational, Preparatory, Middle, Secondary).
- **Early Childhood Care and Education (ECCE):** Integration of Anganwadi and pre-school learning into mainstream schooling.
- **Holistic and Experiential Learning:** Emphasis on critical thinking, creativity, and reducing rote memorization.
- **Mother Tongue as Medium of Instruction:** Until at least Grade 5, preferably Grade 8, to promote cognitive development.

b) Higher Education Transformation

- Multidisciplinary Education: Flexible curricula, multiple entry-exit points, and an Academic Bank of Credit.
- Gross Enrollment Ratio (GER) Target: Increase GER to 5 by 2035.
- National Research Foundation (NRF): Boosting research culture.
- Phasing Out Affiliated Colleges: Granting autonomy to higher institutions.

c) Vocational Education and Skills

- Skill development will start from school level, integrating coding, internships, and vocational exposure by Grade 6.

d) Teacher Development

- Four-year integrated B.Ed. degree: As a minimum qualification for teachers by 2030.
- Continuous Professional Development (CPD): Annual training to improve teaching quality.

e) Technology in Education

- Focus on Digital Learning, E-content, and Online Platforms like SWAYAM, DIKSHA, and use of AI.
- Emphasis on bridging the Digital Divide to ensure equitable access.

f) Equity and Inclusion

- Special attention to Socially and Economically Disadvantaged Groups (SEDGs) including SCs, STs, OBCs, minorities, and girls.
- Gender Inclusion Fund and Special Education Zones for aspirational districts.

3. Result and Discussion

NATIONAL EDUCATION POLICY 2020		
Universalization of Education from pre-school to secondary level with 100% GER in school education by 2030		
	GER in higher education to be raised to 50% by 2035 ; 3.5 crore seats to be added in higher education	NEP 2020 will bring 2 crore out of school children back into the main stream
	No rigid separation between academic streams, extracurricular, vocational streams in schools	Vocational Education to start from Class 6 with Internships
		Teaching upto at least Grade 5 to be in mother tongue/regional language

Theoretical Analysis and Considerations:

For an academic paper, the NEP 2020 can be analyzed using theoretical frameworks such as John Rawls' principles of distributive justice and Amartya Sen's capabilities approach.

- **Strengths**

The policy makes progressive statements and attempts to address historical inequities by focusing on foundational learning and providing targeted opportunities. It aligns with SDG 4 (Sustainable Development Goal 4), which seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all".

- **Challenges and Critiques**

Potential pitfalls include the policy's silence on the Right to Education (RTE) Act, concerns about the implications of private philanthropic partnerships, and a potentially narrow, top-down implementation approach. Critics also point out that grouping all disadvantaged groups under "SEDGs" might obscure the intersectionality of various forms of discrimination (caste, gender, class, religion) and that the digital divide remains a significant barrier to online learning initiatives.

- **Implementation Focus**

The success of the NEP rests heavily on effective implementation, adequate public funding (targeting 6% of GDP), strong local support, and continuous monitoring to translate policy goals into tangible social justice and equal opportunity for all learners.

- **Challenges Ahead**

- i. **Implementation Gap:** India has a history of ambitious policies falling short in execution.
- ii. **Funding:** NEP recommends spending 6% of GDP on education, but actual expenditure hovers around 3%.
- iii. **Teacher Quality:** Ensuring trained teachers in remote areas is difficult.
- iv. **Balancing Equity and Autonomy:** Striking a balance between inclusive access and global-level competition will be tricky.

Conclusion

The New Education Policy 2020 is a landmark reform with the potential to reshape India's knowledge society. It emphasizes holistic, inclusive, and skill-based learning, while keeping Indian values at the core. Yet, its success will depend on how well India bridges gaps of inequality, digital access, and funding. NEP is more than an education policy—it is a mirror reflecting India's aspirations of becoming a knowledge economy, while grappling with its realities of social diversity, inequality, and cultural plurality. It offers a goldmine of examples to connect theory with current affairs.

The New Education Policy-2020 represents aspirations to become a knowledge powerhouse of the world inculcating the best of the global educational experiments. The global education development agenda reflected in the Goal 4 (SDG4) of the 2030 Agenda for Sustainable Development, adopted by India in 2015 – seeks to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” by 2030. The Education policy is a step in the right direction given it is implemented throughout the long period it targets.

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MENTAL HEALTH AND WELL-BEING OF COLLEGE STUDENTS: A PSYCHOLOGICAL ANALYSIS

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Mental Health is an important occupational health issue, in school teachers as work stress is a major risk factor for anxiety and depression. World Health Organization celebrates Mental Health Day on 10th Oct. every year and creates an atmosphere of awareness on mental illness.

Many people experience stress as they combine busy life style and demands of study and work. While trying to save time for friends and family good health is important for students overall development. What we need is a balance of physical, spiritual, emotional and mental health. Good health helps enjoy life and cope with problems. It results in getting feeling of wellbeing which ultimately develops confidence amongst the people. Educational process focuses to develop cognitive and effective abilities. Teacher education development focuses in developing the habitual intention to be truth-seeking, open minded, systematic, emotional balanced confidence in reasoning and prudent judgment making ability

Education is a progressive process which helps an individual to develop his psycho-physical capacities fully. In the year 1982 the Indian government opened up its higher education system exclusively to the private sector as a result of which the whole set up of the higher educational flora has been considerably changed. Number of colleges especially in the interior parts have been opened up which gave rise to the flow of rural based students to the higher education. The major change that we see is that the girl students, who were outside the purview of the college education because of the nonavailability of the higher education facility nearby, are not brought under the higher education fold.

Over the past two decades the Indian higher education system has undergone a sea change. More particularly after the adoption of the policies of globalization, privatization and liberalization by the Indian government the whole economic canvas has broaden considerably. Number of overseas universities has entered on the Indian educational horizon. This has resulted in a fierce competition amongst the Indian colleges.

The physical and mental health of college students has been a big topic in recent years, and it is the one that we have chosen. Our inspiration for choosing this topic came from being college students and getting a firsthand view of this issue. Since we are college students, who are navigating the difficulties of higher education daily, we see the issues of mental and physical health in ourselves and among our peers. Exploring the interconnectedness of societal attitudes, nutrition, and physical health regarding mental health is the inspiration for these topics as well.

Psychological well-being is defined as a positive psychological state which makes an individual to acquire a state of positive functioning, contentment and absence of mental illness (Arvind Sharma, et.al. 2022). It opens up new possibilities for an individual to acquire different experiences and knowledge which increase the level of awareness and stability. Psychological well-being is related to one's age, sex, socioeconomic status and ethnicity (Ryff and Singer 2008). Much importance needs to be given to an individual's psychological well-being as it is interlinked to living healthier and longer lives. Subjective well-being is comprised of the presence of positive effect, the absence of negative effect, and high levels of life satisfaction (Ed. Diener, 1994)

Objectives of the Study

- To assess and compare the overall psychological well-being among college students.
- To assess and compare the dimension-wise psychological well-being of college students under selected five dimensions viz; satisfaction, efficiency, sociability, mental health, and interpersonal relation.

Purpose

The purpose of the study was to evaluate the mental well-being and quality of life among college students.

Data Collection

The researcher collected data using Secondary source like Research paper, articles and Internet etc.

Students

- Building confidence: The students should concentrate on their studies which will generate confidence in them about the subject knowledge.
- The students should always try to strike a balance between the study and the games. Concentrating in one area may result imbalanced personality which is also not desirable.
- They should consciously cultivate good habits such as reading newspapers and updating themselves with what is happening in the outside world. This is the time when they should put in efforts for equipping themselves with the general knowledge.
- The students should inculcate decision making ability in their own sphere of issues.
- They should cultivate time sense which is very much essential in their future life.
- The students should try to learn organize themselves in such a manner that they learn planning, organizing, decision making, and reviewing their achievements with the plans formulated.

Discussion

Thirty studies measuring the association between a wide range of factors and poor mental health and mental wellbeing in university and college students were identified and included in this

review. Our purpose was to identify the factors that contribute to the growing prevalence of poor mental health amongst students in tertiary level education within the UK. We also aimed to identify factors that promote mental wellbeing and protect against deteriorating poor mental health.

Loneliness and social isolation were strongly associated with poor mental health and a sense of belonging and a strong support network were strongly associated with mental wellbeing and happiness. These associations were strongly positive in the eight studies that explored them and are consistent with other meta-analyses exploring the link between social support and mental health.

Another factor that appeared to be protective was older age when starting university. A wide range of personal traits and characteristics were also explored. Those associated with resilience, ability to adjust and better coping led to improved mental wellbeing. Better engagement appeared as an important mediator to potentially explain the relationship between these two variables. Engagement led to students being able to then tap into those features that are protective and promoting of mental wellbeing.

Other important risk factors for poor mental wellbeing that emerged were those students with existing or previous mental illness. Students on the autism spectrum and those with poor social problem-solving also were more likely to suffer from poor mental health. Negative self-image was also associated with poor mental health at university. Eating disorders were strongly associated with poor mental wellbeing and were found to be far more of a risk in students at university than in a comparative group of young people not in higher education. Other studies of university students also found that preexisting poor mental health was a strong predictor of poor mental health in university students.

Conclusion

Understanding factors that influence students' mental health and wellbeing offers the potential to find ways to identify strategies that enhance the students' abilities to cope with the challenges of higher education. This review revealed a wide range of variables and the mechanisms that may explain how they impact upon mental wellbeing and increase the risk of poor mental health amongst students. It also identified a need for interventions that are implemented before young people make the transition to higher education. We both identified young people who are particularly vulnerable and the factors that arise that exacerbate poor mental health. We highlight that a sense of belonging and supportive networks are important buffers and that there are indicators including lack of engagement that may enable early intervention to provide targeted and appropriate support.

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MENTAL HEALTH AND WELL-BEING IN HIGHER EDUCATION: A STUDY IN KOLHAPUR DISTRICT

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Abstract

Mental health is a critical determinant of students' academic success and personal well-being in higher education. The pressures of coursework, financial constraints, peer relationships, and career uncertainties contribute to stress, anxiety, and other mental health issues. This research explores the mental health status of students in higher education institutions in Kolhapur district, Maharashtra, analyzing key stressors, available support systems, and coping mechanisms. Using a mixed-method approach involving surveys and interviews, the study highlights challenges and provides recommendations for improving mental health awareness and institutional support.

Keywords: Mental Health, Higher Education, Student Well-Being, Stress, Anxiety, Counseling Services.

Introduction

Mental health is an essential aspect of a student's life, influencing academic performance, social interactions, and overall development. In India, mental health issues among students are often overlooked due to stigma, lack of awareness, and inadequate institutional support. The situation in semi-urban and rural districts like Kolhapur is even more challenging, with limited access to mental health resources.

This research aims to assess the mental health and well-being of higher education students in Kolhapur district, identify major stress factors, analyze existing support systems, and suggest improvements for a more supportive educational environment.

Literature Review

Several studies highlight the growing mental health crisis among college students worldwide. According to the World Health Organization (WHO), depression and anxiety are among the leading causes of disability among young adults. In India, the National Mental Health Survey (NMHS) 2016 reported that nearly 7.5% of young adults suffer from mental disorders, yet only a fraction seeks professional help due to stigma and unavailability of services.

Research on Indian universities suggests that academic pressure, career uncertainty, financial struggles, and social expectations are major contributors to students' mental distress. However, studies specific to smaller districts like Kolhapur remain scarce, making this research essential to understanding localized challenges and possible interventions.

Objectives of the Study

1. To assess the prevalence (predominant) of mental health issues among higher education students in Kolhapur district.

2. To identify key factors contributing to stress, anxiety, and depression among students.
3. To evaluate the effectiveness of mental health services in educational institutions.
4. To propose strategies for enhancing mental well-being and institutional support.

Research Methodology

This study adopts a mixed-method approach, incorporating both quantitative and qualitative data collection.

1. Sample Selection:

- Target Group: Undergraduate and postgraduate students from various colleges and universities in Kolhapur district.
- Sample Size: 300 students (150 male, 150 female).
- Sampling Technique: Random sampling across different academic disciplines.

2. Data Collection Methods:

- **Survey Questionnaire:** Standardized scales like the Depression, Anxiety, and Stress Scale (DASS-21).
 - o Questions on academic pressure, financial concerns, personal relationships, and coping mechanisms.
- **Interviews and Focus Group Discussions:** Discussions with students, faculty members, and mental health professionals to gain qualitative insights.

3. Data Analysis:

- Quantitative Data: Statistical analysis using SPSS to measure prevalence rates.
- Qualitative Data: Thematic analysis of interview responses.

Findings and Discussion

1. Prevalence of Mental Health Issues

Preliminary results indicate:

- 60% of students experience moderate to high levels of stress.
- 45% report symptoms of anxiety (Concern), with female students experiencing slightly higher levels than males.
- 35% show signs of depression, often linked to academic and financial pressures.

2. Key Stress Factors

- Academic Pressure: Strict deadlines, competitive exams, and future career uncertainties create immense stress.
- Financial Constraints: Many students struggle with tuition fees, living expenses, and balancing studies with part-time jobs.
- Social and Personal Challenges: Peer relationships, family expectations, and societal pressure impact emotional well-being.
- Lack of Awareness and Stigma: Many students hesitate to seek professional help due to fear of judgment.

3. Existing Mental Health Support:

- Limited counseling services: Only a few institutions have dedicated mental health professionals
- Lack of accessibility: Students often unaware of available mental health resources.
- Reliance on informal support: Most students turn to friends and social media rather than professional help.

Recommendation

1. Strengthening Institutional Support:

- Establishing dedicated mental health centers in all colleges.
- Training faculty members to identify and address student mental health concerns.
- Integrating mental health education into the curriculum.

2. Enhancing Awareness and Reducing Stigma:

- Conducting mental health workshops and awareness campaigns.
- Encouraging open discussions about mental health through student-led initiatives.

3. Improving Access to Professional Help:

- Providing free or subsidized counseling for students.
- Collaboration with local mental health professionals to offer periodic sessions.

4. Encouraging Healthy Coping Mechanisms:

- Promoting peer support groups within colleges.
- Encouraging participation in sports, meditation, and creative activities for stress relief.

Conclusion

The findings indicate a significant prevalence of mental health concerns among students in Kolhapur's higher education institutions. The study highlights the need for stronger institutional support, increased awareness, and accessible mental health services. Addressing these challenges through policy changes, awareness programs, and student engagement can create a more supportive environment for students, enhancing their academic performance and overall well-being.

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MULTILINGUALISM AND ENGLISH LITERARY STUDIES: NEP 2020'S VISION AND ITS IMPLICATIONS

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Abstract

The New Education Policy (NEP) 2020 is an important initiative aimed at improving the education system in India. One of its main ideas is to respect and use India's many languages in teaching. This paper looks at how this focus on multilingualism can change the way we teach and study English literature in colleges and universities. It shows how using more than one language can make English literature classes more inclusive, meaningful, and connected to students' lives. It also discusses the difficulties we may face while making these changes and suggests some ways to move forward.

Keywords: NEP 2020, Multilingualism, English Literature, Teaching, Higher Education, India.

Introduction

The New Education Policy (NEP) 2020 aims to make education in India better for everyone. One important goal of NEP is to promote India's many languages in schools and colleges. English has always been important in higher education, especially in English literature studies. But English literature classes in India often feel disconnected from students' own languages and cultures. This paper explores how NEP 2020's focus on multilingualism can improve English literary studies and make them more relevant and inclusive.

NEP 2020 and the Importance of Multilingualism

NEP 2020 encourages teaching children in their mother tongue or local language at least up to class 5 or 8. It also promotes learning Indian classical and regional languages along with English. The policy sees multilingualism as a strength that improves learning and helps students understand concepts better. In higher education, it suggests offering courses in local languages and encouraging research in Indian languages.

English Literature in India: A Background

English literature as a subject started in India during British rule. For a long time, it focused mainly on British writers and was taught only in English. Even after independence, the subject included some Indian writers but still did not connect much with local languages and cultures. Also, because English is the language of the elite, students from rural or regional-language backgrounds often feel excluded in English literature classes.

Benefits of Multilingualism in English Literature:

Including Regional Literatures

With NEP 2020, colleges can include stories, poems, and plays from Indian languages (in English translation) in English literature courses. This will help students understand Indian culture and feel proud of their own languages.

Teaching in Multiple Languages

Teachers can explain difficult ideas using students' first language along with English. Students can also be encouraged to write assignments or express ideas in more than one language, which can boost their confidence.

Decolonizing the Curriculum

Using Indian languages and local stories can help break the colonial mindset that favors only English and Western literature. It makes students appreciate India's own traditions and knowledge.

Challenges:

- **Lack of Resources**

There are not enough good translations or bilingual teaching materials yet. Many teachers are not trained to teach in more than one language.

- **Resistance**

Some students and teachers believe English is necessary for success and fear that multilingual teaching may reduce the quality of education.

- **Assessments**

It is hard to design exams and grading systems that work fairly when students use multiple languages.

Suggestions for the Future

To bring NEP 2020's ideas into English literature, we need to:

- Create good translations of Indian literature into English.
- Train teachers to use multilingual methods.
- Design courses that include both Indian and Western texts.
- Encourage students to research topics in their own languages and in English.
- Discuss with students the importance of language in identity and culture.

Conclusion

NEP 2020 gives us a chance to make English literature classes in India more inclusive and meaningful by respecting multilingualism. Although there are challenges, this is a good opportunity to rethink what and how we teach. English literature can then help students understand both global ideas and their own cultures better.

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NATIONAL EDUCATION POLICY 2020 AND ITS IMPACT ON ZOOLOGY EDUCATION IN INDIA: A SHIFT TOWARDS MULTIDISCIPLINARY AND EXPERIENTIAL LEARNING

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Abstract

The National Education Policy (NEP) 2020 is a revolutionary change in the Indian higher education system, which predicts holistic, multidisciplinary, and experiential learning. The given paper critically evaluates the effects of NEP 2020 on Zoology teaching in India, with the focus on the curriculum change, the innovation of the pedagogical approach, the improvement of employability, and the development of the research culture. Using a qualitative review analytic approach, the following study examines some of the key policy provisions that relate to the life sciences and analyses their implications for Zoology programmes in institutions of higher learning. The paper also outlines key barriers to implementation, which include the lack of infrastructure, faculty willingness, and legal restrictions, and offers strategic suggestions to implement the change effectively. The results reveal that NEP 2020 can transform the teaching of Zoology and make it meet international standards, assuming that the overall issues of systemic and institutional barriers are solved.

Keywords: National Education Policy 2020, Zoology Education, Multidisciplinary Learning, Experiential Learning, Higher Education, India.

1. Introduction

1.1 Background of the Study

The Indian higher education landscape has undergone a massive change after the National Education Policy (NEP) 2020 was promulgated. The policy is a strategic framework that is meant to improve the quality, relevancy and flexibility of education at all levels. The main aims of it include the encouragement of multidisciplinary education, the combination of vocational and academic studies, stimulation of critical thinking, and the promotion of research and innovation. It is worth mentioning that NEP 2020 gives a specific focus on experiential learning and skill development corresponding to the demands of the workforce in the 21st century (Agarwal & Kumar, 2024).

As a fundamental part of the life sciences, zoology has been conventionally taught in India in a lecture-based approach with content-heavy modality, and with a heavier emphasis on taxonomy, morphology, physiology, and ecological concepts. Although these domains are important

components of foundational knowledge, they often lack sufficient preparation of students to work in applied research, interdisciplinary teamwork, or the development of relevant skills in the industry (Bhatia & Kumari, 2025). This is expected to transform Zoology education with NEP 2020, which facilitates flexibility of course choice, combination with allied subjects and offering practical learning experiences to students.

Life sciences education is increasingly becoming interdisciplinary, combining biological sciences with computational methods, environmental sciences, and data analytics globally. These strategies prepare graduates with the analytical and problem-solving skills necessary to address complicated issues, including the loss of biodiversity, climate change, and novel zoonotic infections. NEP 2020 is in line with all these trends in the global higher education setting, and as such, it is offering an opportunity to innovation in Zoology that has never seen before (Chhablani, 2025).

1.2 Significance of NEP 2020 in Higher Education

The NEP 2020 is a groundbreaking policy that was formulated to overcome the constraints that are present in the conventional Indian education system. The major changes are the adoption of a flexible curriculum, numerous points of entry and exit, an academic banking system based on credit and a stiffer focus on research and learning by doing. These programs are geared towards having graduates who are not only well-versed in their major areas of study but are also able to transfer their educational learning into interdisciplinary and practical situations (Desale, 2025).

In the case of Zoology, NEP 2020 is important as it may be used to mitigate the gap between theory and practice. The policy helps students to incorporate Zoology with other subjects like environmental sciences, bioinformatics, genetics and even law or management by encouraging elective-based learning. This interdisciplinary approach will help more students be equipped in various career options, such as wildlife protection, ecological advice, biotechnology, and scientific communication (Government of India, 2020).

Additionally, NEP 2020 values the value of research during the undergraduate level, which instills the culture of inquiry, innovation, and evidence-based problem-solving. During their undergraduate coursework, students studying Zoology can study in the field, take part in laboratory work, and conduct research projects at a very young age. Such are not only advantages to developing practical skills but are also beneficial in developing critical thinking and independent study, which are key to successful careers in academia, research, or industry (Ministry of Education, Government of India, 2026).

1.3 Scope and Focus on Zoology Education

This paper is a focused investigation of the implications of NEP 2020 on Zoology education in India and how the policy could support curriculum development, pedagogy, and skill acquisition. The study will entail the following scope:

- Analysis of NEP 2020 requirements on higher education and life sciences.
- Opportunity analysis in multidisciplinary and experiential learning in Zoology.
- Determining the problem in applying NEP reforms in Indian universities.
- Assessment of the possible effects on the labour market, research focus, and educational achievement.

This study will shed light on the larger opportunities of NEP 2020 to make life sciences education in India modern through its focus on Zoology. Even though the same reforms can be applied in other fields of science, Zoology is especially relevant due to its applied character, the possibility of working in the field, and the necessity of biodiversity and environmental management (Pathak & Maity, 2024).

2. Literature Review

2.1 Multidisciplinary Approaches in Life Sciences Education

The second article focuses on the multidisciplinary approaches in the education of life sciences. The recent literature in the education of life sciences emphasises the need to break disciplinary boundaries to cope with complex scientific and social issues. The combination of computational techniques, environmental sciences, biotechnology, and social sciences has a positive effect on the analytical thinking and problem-solving of students. In the case of Zoology, multidisciplinary methods enable students to understand the areas of congruence among ecology, genetics, bioinformatics, and environmental management (Rathi, 2024).

This kind of integration is now becoming essential due to the complexity of modern challenges, which comprise climate change, habitat loss and new diseases. Interdisciplinary knowledge enhances the quality of research and employability in graduates with that knowledge, as they can apply ecological modelling, statistical analysis, and molecular techniques to problems in the real world (Rathod, 2025).

2.2 Experiential Learning in Science Education

The experiential learning takes the central place in NEP 2020 and has been considered as the key in the education of life sciences. The Experiential Learning Theory (1984) by Kolb assumes that when students are exposed to concrete experiences and reflect on these experiences, conceptualise the knowledge and apply it to new contexts, then learning is effective. In the case of Zoology, this is translated to practical lab work, field surveys, wildlife observation and conservation work (Reddy & Mohan, 2025).

Empirical research has shown that experiential learning improves student engagement, retention of knowledge and critical thinking. By introducing internships, community-based research, and collaborative projects to the Zoology curriculum, the student would be able to contextualise theoretical content and acquire practical skills and professional networks (Sethy & Mahapatro, 2025).

2.3 NEP 2020 and Higher Education Reforms in India

NEP 2020 presents several solutions, which directly affect higher education pedagogy and curriculum. These include:

- Life-long learning: Becoming a student at any age and allowing them to earn credits through discipline-specific electives.
- Multiple access and exit points: Providing certificate, diploma and degree options that support the varied learning needs.
- Research focus: A call to undergraduate students to join research projects and innovation hubs.
- Skill development: This is centred on domain-specific and transferable skills, e.g., data analysis, communication, and environmental stewardship skills.

These reforms are meant to make the education system dynamic, student-oriented and globally oriented. In the case of Zoology, this may include having curricula that include higher-level modules in bioinformatics, wildlife management, conservation policy and environmental ethics, and so broaden the competencies of students beyond conventional disciplinary limits (Shilpa & Sharma, 2025).

2.4 Gaps in Current Research on Zoology Education

Despite the growing focus on scholarship on the National Education Policy 2020 and reform in higher education, there is limited empirical research on what the policy means specifically to zoology education in India. The current literature majorly covers general instruction in science, preparation of teachers, or policy interpretation, and very little is done on the effectiveness of multidisciplinary and experiential pedagogies in the life-science curriculum. As a result, there remains a huge gap in terms of practical challenges and possibilities of zoology programmes (ShodhVarta Editorial, 2024).

This gap underscores the need to conduct specific research studies to determine the effectiveness of curriculum redesign, instructional methods, research integration, and the employability effectiveness of zoology graduates as part of NEP. These studies would enlighten policymakers, teachers and institutional stakeholders on how zoology in schools should be aligned to the goals of NEP 2020 (Sreenivas *et al.*, 2025).

3. Objectives of the Study

The study aims to:

- Review NEP 2020 in relation to programmes in higher education and zoology.
- Evaluate the possibility of integrating multidisciplinary and experiential learning into zoology courses.
- Determine challenges in the implementation of NEP 2020 reforms in Indian universities.

- Assess potential benefits in research orientation, employability and learning outcomes among the students.

All these goals together are a systematic method of studying the transformational potential of NEP 2020 in the field of zoology education.

4. Research Methodology

4.1 Research Design

The current research adopts a qualitative, descriptive design, which is appropriate in matters related to policy analysis and inquiry into education. It compiles existing literature, reviews policy reports, and considers the trends in curricular changes to determine the implications of NEP 2020 for the teaching of zoology (Sultania & Singh, 2024).

4.2 Data Collection and Sources

The research is based on secondary sources of data, which include:

- Government reports, especially the NEP 2020 set of documents by the Ministry of Education, Government of India.
- Academic journals on peer-reviewed articles on life-science education, experiential learning, and multidisciplinary education.
- Curricular structures of the zoology programmes of Indian universities were utilised to identify gaps and possibilities (Tamrakar *et al.*, 2024).
- Research examining the implementation of NEP 2020 and the overall reform of higher education.

All these sources provide a general picture of the current trends, opportunities and challenges.

4.3 Analytical Approach

Thematic analysis strategy is used to:

- Find salient NEP 2020 stipulations that relate to zoology.
- Evaluate the possibility of combining multidisciplinary and experiential learning.
- Assess curriculum, pedagogical, and infrastructural gaps and challenges.
- Generalise the results with some suggested effective implementation strategies (Yadav *et al.*, 2025).

This kind of approach allows the creation of insights that will bring out both theoretical and practical implications of the policy implementation in zoology education.

5. NEP 2020: Key Provisions Affecting Zoology Education

5.1 Multidisciplinary Curriculum Framework

One of the bright aspects of NEP 2020 is its focus on multidisciplinary education. The policy allows an elective choice in a wide variety of fields, and thus eliminates traditional divisions between science, arts, humanities and vocational courses. In zoology, it enables a combination of biological fundamental concepts with other fields such as environmental science, bioinformatics,

genetics, data analytics, ecology, and, to a smaller degree, law and management. A zoological multidisciplinary framework enhances analytical, problem-solving, and decision-making skills (Yadav & Yadav, 2024). The majority of students who study wildlife ecology can combine field ecological survey and data analysis based on statistical programs or GIS mapping methodology. Similarly, by introducing molecular biology or bioinformatics courses, zoology learners are adequately prepared to evaluate genetic variation, population, and conservation approaches at the molecular level. This combination helps the Indian higher-education curricula to meet global trends, which are moving toward an emphasis on applied and interdisciplinary skills to respond to scientific and societal demands (Jain *et al.*, 2023).

5.2 Experiential and Hands-on Learning

NEP 2020 has a strong emphasis on experiential learning, which is an important life-science learning component. The policy encourages universities to provide students with hands-on experience through laboratory, field surveys, internships, and community-based research. In the case of zoology, experiential education may take up several forms, such as biodiversity evaluation, wildlife observation, ecological modelling, conservation initiatives, and physiology, genetics, or microbiology laboratory research (Kumar *et al.*, 2026). Experiential learning enhances student interaction, critical thinking, and recall of theory. The Experiential Learning Theory by Kolb (1984) emphasises the value of learning in a concrete experience, in reflections, in conceptualisation, and in applying and therefore closes the gap between classroom learning and practical work. In addition, NEP 2020 promotes teamwork and industry placement, collaboration with non-governmental organisations, research institutes, and environmental agencies, introducing the students to a variety of perspectives, teamwork, and applied problem-solving, which are important in equipping graduates to meet multidisciplinary challenges in modern zoological sciences (Chowdhury & Srivastava, 2026).

5.3 Research and Innovation Orientation

NEP 2020 lays great emphasis on undergraduate and postgraduate research and innovation. The students are also motivated to conduct research, to develop critical questioning abilities, and to make their contribution towards generating knowledge (Lanhamliu, 2026). In zoology, this allows undergraduates to undertake independent or group research in areas of independent behavioural ecology to conservation genetics, climate adaptation and biodiversity management. Intrinsic learning Curricular research promotes curiosity, analytical ability, and methodological rigour, and equips students with higher educational studies or occupational positions in academia, environmental consultancy, biotechnology and science communication. In this manner, the universities are encouraged to set up research clusters and centres of innovation, thus creating an ethos of inquiry and experimentation in such a manner that is consistent with the standards of science in the world. This kind of orientation guarantees that the graduates not only

understand the theoretical mastery but are also practically proficient at applying scientific methods to problems in the real world (Singh & Srivastava, 2026).

5.4 Flexible Academic Pathways

The other relevant clause of NEP 2020 is the development of flexible educational opportunities that include several entry and exit points as well as the Academic Bank of Credits (ABC). These processes enable the students to accrue credits, gain certificates or diplomas and engage in interdisciplinary education at their own pace. This helps zoology students to combine primary zoological courses with electives in other allied fields like environmental management, biotechnology, statistics, and GIS. Short-term internships, skill-based coursework or research modules can also be taken by students, which will be counted as part of the degree completion later. This flexibility provides a foundation of lifelong learning, a constant learning process in new skills and makes student learning remain relevant to individual interests and industry demands. Besides, the flexible paths increase the inclusiveness and access in higher education by allowing students to have temporary breaks because of personal, financial, or professional reasons without losing academic momentum. This means that these provisions make zoology education more flexible and student-centred, as well as responsive to various requirements (Singh & Singh, 2026).

6. Implications for Zoology Education

6.1 Curriculum Transformation

The implementation of the National Education Policy 2020 has a great impact on the change of the curriculum in the subject of Zoology. In the past, this field has been dominated by programmes that are mainly content-based and focus on memorising taxonomic classifications, anatomical, physiological and ecological concepts. Although this background knowledge is necessary, these curricula are often not incorporated with modern scientific practices and practical uses. The flexibility, interdisciplinarity and skill-based learning aspects of the policy are necessitating a shift towards modular programmes that integrate core zoological knowledge with allied subjects.

As an example, undergraduates studying Zoology can now take electives such as bioinformatics, wildlife conservation, environmental policy, molecular biology, geographic information systems and statistics. These types of integrative pathways will prepare learners to address complex issues, such as loss of biodiversity, degradation of habitats, and new zoonotic diseases. Both analytical and practical skills are enriched with the introduction of applied modules (ecological monitoring, conservation genetics, computational biology), which makes the curriculum consistent with world-leading approaches to teaching and learning life sciences (Singh & Singh, 2026).

6.2 Pedagogical Innovation

Pedagogical innovation is another policy that advances the learning modalities of student-centred, interactive and experiential learning. The conventional lecture styles are insufficient; students are beneficiaries of problem-based learning, case studies, fieldwork, laboratory work and projects.

In Zoology, theoretical constructs may be turned into experiential learning opportunities by organised field excursions to assess biodiversity, wildlife surveys, habitat restoration projects, and laboratory studies of physiology or genetics. Pedagogy aided by technology (such as simulation software, virtual labs, and electronic databases) also improves the level of skills and scientific literacy. Shared group work and community-based programs help develop teamwork and communication, as well as professional flexibility, and thus equip students with the multidisciplinary nature of modern life sciences (Adi, 2030).

On the policy, Pedagogical innovation also focuses on continuous assessment and reflective learning. Instead of using traditional tests, students are assessed with the help of applied skills, research work, internships, and demonstrations of skills, which will make learners more involved and critical in the learning process.

6.3 Employability Enhancement

One of the salient implications of the policy on Zoology education is the improvement of the graduates' employability. Through the combination of applied skills, interdisciplinary understanding, and practical learning, the graduates of Zoology will have a greater chance of joining various careers such as wildlife and biodiversity management, environmental consultancy, conservation policy, biotechnology, research institutions, ecotourism and scientific communication (Kumari, 2026).

Like internships, industry relationships and community-based projects can expose the students to real-world activities, networking, and exposure to professional practice. Graduates with this kind of training are therefore not just academically fit, but they are also career-prepared in that they can fit into new areas and play significant roles in environmental and scientific issues.

6.4 Research Culture Development

The policy gives a lot of priority to the cultivation of a research culture at the undergraduate level. Exposure to research at a young age leads to innovation, curiosity and critical thinking. In the case of Zoology undergraduates, field-based or lab research is a way to develop methodological rigour, analytical and problem-solving skills (Ismail, 2026).

Cooperation with research centres, nongovernmental organisations, and businesses will increase the chances of knowledge generation and practice. The creation of cluster research, innovation hubs, and mentorship programmes also assists students in building confidence in the process of designing experiments, data analysis, and presentation of scientific results. In the long term, this

research orientation helps to enhance the national level of scientific innovation in the sphere of life sciences and prepares students to further studies, demanding tests or professional employment.

7. Challenges in Implementation

7.1 Infrastructure Limitations

The Indian universities are faced with the challenge of the old-fashioned labs, a lack of field equipment and inaccessibility to research databases. Such restrictions may hinder the implementation of experiential and research-based curricula, thus limiting practical learning experiences among students (Bhattacharya, 2026).

7.2 Faculty Preparedness

Multidisciplinary, experiential, and research-based pedagogy cannot be implemented without a variety of faculty members in terms of skills, training, and experience. Many institutions are complaining about difficulties in faculty development, and some of them include inadequate professional development programmes, insufficient exposure to new teaching methods and unwillingness to change pedagogical practices.

7.3 Curriculum and Assessment Reforms

The move towards modular, flexible curricula that have many points of entry and exit requires meticulous planning and coordination of departments. Assessment systems should also change to competency-based assessment, including project work, field reports and demonstrations. The challenge of this can be to ensure consistency, quality and fairness in such assessments.

7.4 Institutional and Regulatory Challenges

Slow implementation through bureaucracy, lack of interdepartmental strategy and differences in regulatory needs across the universities can slow the implementation process. It is necessary to strategically plan and work together with the regulatory bodies, faculty and administration to develop a cohesive framework of interdisciplinary and experience-based learning without interfering with institutional autonomy.

8. Recommendations

8.1 Infrastructure and Resource Development

Universities ought to invest in contemporary laboratories, computing facilities, computer field stations, electronic libraries and research apparatus. Hands-on learning and research-based curricula require access to both advanced tools, data repositories, and simulation software.

8.2 Faculty Training and Development

Colleges ought to establish a continuous professional development programme so that faculty members can be trained in experiential pedagogy, interdisciplinary curriculum development, supervising research, and technology-based pedagogy. Faculty exchange programmes and joint research can also be encouraged to improve the quality of teaching.

8.3 Industry and Research Collaboration

Associations with research organisations, wildlife departments, environmental Non-Governmental Organizations, and industry can offer students internships, fieldwork, and mentoring. Teamwork programs augment practical education, competence building and employability.

8.4 Curriculum and Assessment Innovations

There should be integration of core and elective subjects in all disciplines in the curriculum, which should be deep and broad. The evaluation methods should be switched to competency-based assessment, which means that they should include project work, field work, laboratory work, research projects, and reflection portfolios.

Conclusion

The introduction of the National Education Policy 2020 has the power to revolutionise Zoology education in India through the encouragement of multidisciplinary learning, experiential learning, research, and academic flexibility. The major outcomes of this policy for the education of the life sciences are curricular change, pedagogical change, increased employability, and research-based training.

However, to harness this potential, there is a need to incorporate issues about infrastructure, faculty readiness, curriculum restructuring and institutional coordination. Effective implementation would have to be strategic in terms of resource investments, faculty development, industry collaboration, and the innovations of assessment.

Overall, the policy offers guidelines on how to produce Zoology graduates who are not merely academically competent but also competent, flexible and able to work in the field of research, conservation and solving environmental issues. When properly instituted, these reforms can ensure that Indian Zoology education meets the standard of the world, and the graduates will be able to face all the scientific and societal challenges of the twenty-first century.

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IMPLEMENTATION OF THE NATIONAL EDUCATION POLICY 2020 AND LIBRARY SERVICES

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Abstract

To implement the National Education Policy 2020 in libraries, it is necessary to align the library's functions, resources and services with the goals, principles and objectives of the National Education Policy. The National Education Policy is a comprehensive framework that addresses various aspects of education. It includes inclusive access, quality, equity and research. This paper examines how the various services provided in libraries can be delivered in line with NEP: 2020. It also reviews how the initiatives we organize for readers in our daily library work can be appropriately linked to the objectives of NEP. In line with NEP 2020, various aspects such as curriculum support, inclusive access, use of technology, research, skill development, professional development, multilingual resources, and promotion of continuing education have been studied in various libraries.

Keywords: Curriculum Support, Inclusive Access, Research Support, Professional Development, Multilingual Resources NEP 2020, Library Services.

Introduction

National Education Policy :2020 is considered an important milestone in the Indian education sector initiated by Ministry of Education, Government of India. (2020). The main objective of this policy is to instill a student-centered, research-oriented and technology-based education system. In line with this policy, the role of the library is very important. The library has to play an important role as a support center for research, a hymn to reading resources. In line with NEP:2020, the library has become not only a place for exchanging books, but also a place of inspiration for the learning process and a medium for new initiatives in the educational sector.

Library curriculum support plays an important role in implementing new curricula. Keeping the library collection in line with the new curriculum, organizing digital literacy programs and developing research systems are the needs of the modern era. This insists the habit of searching and analyzing information among students and increases their confidence.

NEP:2020 emphasizes on inclusive education, hence it is necessary to ensure inclusive access to libraries. Providing both digital and physical resources to all students.

It is expected that the convenience of students with disabilities will be considered in NEP :2020, it will also include technology integration in libraries. Research Support through services

provided in the library is also very important. It helps to strengthen the system and thus encourages researchers. By providing multilingual resources, the library provides readers with the opportunity to develop knowledge and skills in different languages.

Thus, the library is not just a support pillar in the process of making students self-reliant, responsible and researchers, but it is a living, dynamic and comprehensive system.

1. Curriculum Support

Libraries play a vital role in implementing new curriculum. Libraries can provide their services by keeping the library collection up-to-date, ensuring that it is relevant to the curriculum, and providing tools that facilitate active and experiential learning.

Examples:

- Provide access to relevant resources
- Research Support and Information Literacy
- Developing Digital Literacy Programs
- Purchase Updated Syllabus books

2. Inclusive Access

The National Education Policy emphasizes on inclusive education. To ensure equal opportunities for education for all, libraries should provide services to all types of readers, especially considering the information needs of readers with disabilities. For this, the latest information technology resources should be used, such as:

- Using technology for information distribution
- Using various types of information tools
- Using various forms of educational materials
- Using physical and digital materials
- Promoting gender equality and inclusion

3. Technology Integration

Modern libraries should use computer technology to collect, store, classify, and disseminate information. E-resources, digital platforms, and other technologies should be used to facilitate the learning process of students and teachers. Some examples are:

- Using technology for inclusive access
- Using digital libraries and e-resources
- Using a library management system
- Using the catalog by OLI
- Providing cloud base services
- Library computerization and use of RFID technology
- Social media and digital marketing

4. Research Support

Research and innovation have been identified as important issues in NEP:2020. The library can undertake various activities to support research activities; the library plays an important role in encouraging readers to do research. Research can be done alone but it cannot be done in isolation because new knowledge is created on the basis of previous knowledge, hence the library does such things as providing knowledge tools, making information available, providing reference services for where to get information, etc. In the modern era of library science, libraries can provide the following facilities which will develop a research attitude among the readers.

- Libraries can subscribe to online journals and e-books to make research-based articles available.
- Making various types of databases available to readers
- Giving a lecture to readers on research ethics
- Get plagiarism detection software to prevent plagiarism.
- Making information about research conferences available to readers
- To bring Thesis of the Month, a publication of the Association of Indian Universities, to the readers
- Providing selected information services such as references and research assistance
- Provide information on software like Zotero, Endnote, Mendeley on the topic of citation management.
- Providing a list of Scopus indexed journals
- Organizing research writing training and workshops

5. Professional Development

Encouraging librarians to participate in various activities, conferences, workshops for professional development. So that they can keep themselves updated and provide new service facilities to their readers using the latest resources. In today's competitive era, we can implement the original objective of NEP :2020 that library staff should acquire various skills. For example.

- Participate in workshops and trainings
- Participating in conferences and seminars
- Taking online courses and courses
- Participating in soft skills development programs
- Participating in a stress management program

6. Collaboration with Academic Departments

The information needs of each department are different and to know those needs the library should contact those departments so that they can know these needs and provide services accordingly. By working with the teachers, the maximum use of library resources can be made in the teaching process.

Examples:

- Organizing information literacy sessions
- Launching the classroom Library concept
- Conducting collaborative research
- Calling publishers to develop curriculum
- Collecting special books for touching.
- Organizing programs in collaboration with various departments.

7. Multilingual Resources

The National Education Policy emphasizes the use of multilingual resources. To implement the second law of librarianship, which states that every reader should have access to his or her own book, libraries should purchase multilingual resources that can cater to the linguistic diversity of readers and allow everyone to study in their own language, such as:

- Creating a collection of diverse multilingual tools
- Providing specific databases and resources related to the language.
- Providing translation services
- Organizing multilingual stories and programs.
- Using social media in different languages
- Purchasing books in local, national, and international languages
- Providing portals for learning various languages.

8. Promote Lifelong Learning

The contribution of libraries in continuing education and distance learning is very important. Many people's desire for education remains unfulfilled due to some reasons, and continuing education is a good option for them to fulfill it, and they can accept it with the help of libraries. Education is a lifelong process that starts from the birth of a person and ends at death. A person is a student throughout his life, he gets to learn something or the other every day, many of which can be completed through continuing education and distance learning, for which the role of libraries is very important. Libraries are working to give a new direction to their lives by providing the following facilities.

e.g.

- Organizing different events
- Organizing a lecture by an expert
- Providing different types of reading materials
- Organizing workshops for soft skills development
- Creating a learning community (clubs, blogs, LinkedIn)
- Organizing lectures, seminars, workshops
- Providing reading materials to non-traditional readers

- To promote research
- Providing information on YouTube channels that provide continuing education
- Providing reference services
- Providing reading room services
- Providing information about NPTEL and Swayam portal
- To provide information about the National Digital Library of India.

9. Community Engagement

Libraries can act as community centers, providing tools for interacting with the local community, organizing various programs, and catering to reading needs other than academic needs, aligning with the goals of NEP: 2020. Some of them are:

- Reading Program (Book Club)
- Workshops and educational programs
- Cultural and art programs (dance, music)
- Health and Wellness Activities (Yoga)
- Environmental and sustainability initiatives (tree planting, rainwater harvesting)
- NSS activities

10. Assessment and Feedback

Regularly evaluate the services provided by the library, make changes in the services provided accordingly, establish new models based on the data collected, emphasize on the results-based service approach, and collect feedback from users for this, using the following methods.

Examples:

- Surveys and questionnaires
- Focus Group
- Exit Interview
- Online Opinion Form
- Library usage data (top users, most used services)
- Suggestion Box
- Benchmarking
- PDCA cycle

11. Documentation and Reporting

To maintain detailed records of the library's activities, services and contribution to education. To prepare all records required for the fulfillment of NEP objectives, and to prepare regular reports accordingly. It includes:

- Program Brochure
- Program Report (Report)

- Library usage report
- Financial and budget documentation
- Personnel and training documentation
- Policy and Procedure Documentation
- Preparing a report on library services

Conclusion

Libraries play a vital role in the successful implementation of NEP 2020, as they support the vision of creating a more inclusive, accessible and holistic education system. By integrating and expanding digital tools, providing diverse resources, fostering creativity and collaborating with educational institutions, libraries play a significant role in transforming education in India.

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NEP 2020 AND OUTCOME-BASED EDUCATION IN INDIA: A TRANSFORMATIONAL SHIFT IN TEACHING AND LEARNING PRACTICES

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Abstract

National Education Policy (NEP) 2020 is a significant change in the Indian education system, which aims at enhancing the quality, equity, and competitiveness in the global arena. One of the salient aspects of the given policy is the introduction of the concept of Outcome-Based Education (OBE), according to which the pedagogical emphasis is shifted to the achievement of the clearly defined learning outcomes, rather than the transmission of the content. This question analyses the alignment of NEP 2020 and OBE and evaluates their overall effects on the teaching-learning dynamics, teaching-learning curriculum, and evaluation procedures in Indian higher education. The study, based on a qualitative and analytical research design grounded on the secondary data materials, such as policy documents and the scholarly literature, questions key stipulations of NEP 2020 that support multidisciplinary, competency-based, and learner-centred education. The findings indicate that NEP 2020 contributes to innovation in the pedagogical context, the presence of continuous and formative assessment, and an increase in student engagement, thus enabling the effective execution of OBE. However, there still exist obstacles concerning institutional readiness, faculty readiness, curriculum mapping, and assessment praxis. Therefore, although NEP 2020 offers an excellent policy framework to OBE, the provision of institutional support, the development of the faculty, and the effective quality assurance mechanisms are an indispensable part of the successful realisation of its transformative capabilities in Indian education.

Keywords: NEP 2020, Outcome-Based Education, Transformation, Teaching-Learning.

1. Introduction

The international educational systems are in a complete restructuring to meet the demands of the fast-paced, knowledge-driven society. In India, this has been institutionalised in the National Education Policy (NEP) 2020 that focuses on quality, relevance, flexibility, and learner-centric approaches with some rigour. The focal point of these reforms is the pedagogical paradigm of the Outcome-Based Education (OBE) model, which is a construct that prepositions clearly stated learning outcomes and the alignment of instructional practices, curriculum design, and assessment procedures towards achieving the outcomes. When OBE is institutionalised as a part of the NEP 2020, it is a step in the right direction that will see the end of the traditional, content-

based learning approaches in favour of competency-based and holistic learning paths (Government of India, 2020).

1.1 Background of Outcome-Based Education

Outcome-based Education was a natural reaction to the lack of proper insight in the traditional educational frameworks, where the focus on syllabus within the curriculum and memorisation were prioritised over meaningful learning. The concept has become popular in the second half of the twentieth century, especially with the work of William Spady, who assumed that the organisation of educational arrangements should be based on knowledge, skills, and values that students should possess at the end of an educational experience. OBE emphasises focus on learning outcomes, learner achievement, pedagogical flexibility, and constant improvement. OBE has, over time, been adopted in school-based, vocational, and higher-education environments to increase accountability, transparency, and educational quality (Harden, 2002).

1.2 Overview of National Education Policy 2020

The National Education Policy 2020 is the first national comprehensive education policy of the twenty-first century to replace the National Policy on Education 1986, which replaced the previous policy. NEP 2020 aims to revolutionise the Indian education system through the promotion of access, equity, quality, affordability and accountability. It also brings about substantive structural and curricular reforms that include multidisciplinary education, flexible learning tracks, incorporation of vocational education and focus on critical thinking and life skills. Fundamentally, NEP 2020 promotes competency-based learning and assessment and, therefore, has much in common with the principles of the Outcome-Based Education (World Bank, 2018).

1.3 Rationale for Outcome-Based Education under NEP 2020

The rationale behind the inclusion of OBE into the NEP 2020 framework lies in the necessity to make education more pertinent, skills-based, and learner-centred. The old Indian education has often been criticised as exam-based and with little attention to employability and practical use. OBE addresses these issues by clearly defining anticipated learning outcomes and helping students gain measurable competencies. NEP 2020 recognises OBE as a tool that will ensure higher-order thinking, lifelong learning, and holistic development, hence equipping learners with global competitiveness and contribution to society (University Grants Commission [UGC], 2022).

1.4 Scope and Focus of the Study

This paper will focus on the analysis of the introduction of Outcome-Based Education into the NEP 2020 system with specific attention paid to teaching-learning processes and assessment reform. It explores the implementation of OBE principles in curriculum design, pedagogy and evaluation in Indian education, particularly at the higher-education level. The research questions

also seek to find out challenges, opportunities and gaps in research related to the implementation of the OBE under NEP 2020 (Tilak, 2023).

2. Review of Literature

2.1 Concept and Evolution of Outcome-Based Education

According to scholarly discourse, Outcome-Based Education can be characterised as a practice that organises all the education elements around some well-defined learning outcomes. Researchers note that OBE can also change the emphasis on the inputs to instruction to outputs by learners, thus providing accountability and transparency in the educational systems. OBE has, over the years, been developed to not only cover cognitive outcomes, but also affective and psychomotor spheres, making it a holistic learning framework (Raj, 2025).

2.2 Outcome-Based Education in Higher Education: Global Perspectives

In the higher-education systems of countries like the United States, Australia, the United Kingdom and South Africa, among others, OBE has been adopted on a very large scale globally. Evidence-based research shows that OBE increases curriculum coherence, better student engagement and academic programmes to industry requirements. OBE is also endorsed by international accreditation bodies as a guaranteed quality assurance and comparability of qualifications across the jurisdiction (Valliyil, 2022).

2.3 Teaching–Learning Reforms under NEP 2020

In literature about NEP 2020, a strong transition to learner-centred, experience-based and inquiry-based learning is identified. According to researchers, NEP 2020 promotes novel pedagogic methods via project-based learning, team learning, and interdisciplinary methods. Such reforms facilitate OBE as students can learn by taking active responsibility to construct knowledge and show learning outcomes in terms of practical, real-life application (Reddy, 2025).

2.4 Assessment and Evaluation Practices in OBE

OBE views assessment as a formative process that is continuous, as opposed to a relatively discrete summative encounter. Research highlights the use of rubrics, portfolios, competency-based tests and self-assessment methods as a means of assessing learning outcomes. Such reforms in assessment are supported in NEP 2020, which promotes frequent feedback, assessing flexibility, and less focus on high-stakes tests (Stracke *et al.*, 2022).

2.5 Research Gaps in NEP 2020 and Outcome-Based Education

Although there is a lot of discourse regarding NEP 2020 and OBE, there are research gaps as outlined in the available literature. There is less empirical evidence of how OBE has actually been implemented in the Indian institutions. Also, the lack of research on faculty preparedness, institutional issues, and consistency between policy goals and classroom implementation exists.

These loopholes highlight the necessity of additional systematic studies on the effectiveness and the effect of OBE under NEP 2020 (Frenk *et al.*, 2022).

3. Objectives of the Study

This research has the following objectives:

- To explore the conceptual perspectives of Outcome-Based Education.
- To analyse the alignment between NEP 2020 and OBE principles.
- To investigate teaching, learning, and assessment reforms brought by NEP 2020.
- To determine the issues and gaps in the research on the application of OBE in India.
- To determine the transformative effect of OBE on teaching-learning practices.

4. Research Methodology

4.1 Research Design

The study has a descriptive and analytical research design to examine how the National Education Policy 2020 (NEP 2020) contributes to the development of Outcome-Based Education (OBE) in India. To conduct the analysis of policy documents, scholarly literature and secondary data regarding the areas of teaching-learning and assessment reforms a qualitative methodology is employed. This design is considered appropriate since it will provide the holistic perception of conceptual frameworks, policy intentions, and education practices related to OBE under NEP 2020 (Adil *et al.*, 2024).

4.2 Data Sources and Data Collection

The research is based on the secondary data that covers the NEP 2020 document, reports published by the regulatory agencies, including the University Grants Commission (UGC) and the National Assessment and Accreditation Council (NAAC), and peer-reviewed scholarly research articles, monographs, and academic journals. A systematic literature review was carried out to identify the information on the global OBE practices, reforms driven by policy and barriers to implementation in the Indian context (Alenezi *et al.*, 2023).

4.3 Analytical Framework

The collected data are interpreted in terms of a thematic analysis framework. Some of the major themes include curriculum design, pedagogy, assessment reforms, faculty roles, and institutional challenges. The themes are analysed with respect to OBE principles to contrast how NEP 2020 can transform the practices of teaching and learning (Babbar & Gupta, 2022).

5. NEP 2020: Key Provisions Supporting Outcome-Based Education

5.1 Learner-Centric and Competency-Based Curriculum

NEP 2020 explicitly approves the shift to competency-based and learner-centric curricula. The policy outlines very clear learning outcomes that are rich in knowledge, skills, values and attitudes. The approach is in line with OBE since it requires curriculum development to be based on anticipated outcomes, thus arranging learning experiences in line with this development.

5.2 Flexibility in Learning Pathways and Credit Framework

The policy provides flexible learning methods by providing various entry and exit routes and the Academic Bank of Credits (ABC). This type of flexibility will help in supporting OBE because it will allow learners to advance at their own pace, as well as show the achievement of learning outcomes across disciplines and institutions.

5.3 Holistic and Multidisciplinary Education

NEP 2020 will encourage multidisciplinary and holistic education, which will stimulate students to study various academic disciplines. The outcome-based learning is helped by this wide-based method through critical thinking, creativity, ethical reasoning and problem-solving skills without being restricted to specific disciplines (Moshtari & Safarpour, 2024).

5.4 Continuous and Formative Assessment Reforms

The NEP 2020 reforms on assessment focus far more on continuous and formative assessment than high-stakes testing. These changes align with OBE, focusing on frequent feedback, competence assessment, and student achievement towards predefined results.

5.5 Role of Technology in Outcome-Based Learning

Technology is very useful in supporting OBE using digital means, online testing, learning management, and adaptive learning tools. NEP 2020 promotes the use of technology to improve access, customise learning, and keep track of the learning outcomes accomplishment (Saaida, 2023).

6. Impact of NEP 2020 on Teaching–Learning Practices

6.1 Shift from Content-Based to Outcome-Based Teaching

NEP 2020 coordinates a shift in the traditional, content-intensive teaching towards outcome-oriented teaching. The teachers are also compelled to create learning tasks that can allow the learners to show their competencies, thus leading to meaningful learning rather than rote learning.

6.2 Pedagogical Innovations and Active Learning Strategies

The policy advances pedagogical innovations which include project-based learning, experiential learning, inquiry-based learning and collaborative learning. These plans are active and involve the learners as they facilitate achieving the learning outcomes by real practice and reflection (Mahrishi & Abbas, 2023).

6.3 Faculty Roles in Outcome-Based Education

In OBE, the faculty role is transformed to one of information provider to facilitator, mentor, and learning designer. NEP 2020 pays much attention to continuous professional growth and provides teachers with the skills of outcome mapping, pedagogical innovation, and assessment design (Gupta & Gupta, 2022).

6.4 Student Engagement and Self-Directed Learning

OBE in NEP2020 promotes independence in students and self-directed learning. Students are encouraged to take charge of their learning process, think about feedback, and engage in the accomplishment of learning outcomes, thus increasing engagement and the learning process (Oza & Khamar, 2024).

7. Assessment and Evaluation in Outcome-Based Education

7.1 Learning Outcomes and Program Outcomes Alignment

OBE requires that the outcomes of courses, programs, and institutions are in line. NEP 2020 reinforces that alignment through promoting planning of outcome-based curriculum and systematic recording of learner achievement (Gupta, 2025).

7.2 Rubrics, Competency Mapping, and Performance Indicators

OBE assessment is based on the use of rubrics, competency mapping, and performance indicators. These tools offer clear requirements on how to assess the performance of learners and provide consistency and fairness in outcome measurement.

7.3 Continuous Evaluation and Feedback Mechanisms

The mechanisms of continuous evaluation, such as formative assessment and prompt feedback, help the learners to understand their development toward the learning outcomes. NEP 2020 identifies feedback as an important part of good education and lifelong learning (Senapati & Singh, 2023).

8. Challenges in Implementing Outcome-Based Education under NEP 2020

8.1 Institutional Readiness and Infrastructure Constraints

Most institutions are faced with issues of infrastructural challenges, digital connectivity, and administration capacity, which can hinder the successful implementation of OBE. The lack of technological potential and resource inequality (institutional) are critical issues (Gupta, 2022).

8.2 Faculty Training and Capacity Building Issues

OBE requires considerable faculty training to be successful. Effective implementation is challenged by resistance to change, the absence of awareness and the opportunity for professional development (Sachdeva, 2023).

8.3 Curriculum Design and Outcome Mapping Challenges

The development of outcome-based curricula and matching assessments to learning outcomes may be quite complicated and time-consuming. Institutions are known to have a problem of articulation and inter-programme coherence.

8.4 Assessment and Accreditation Concerns

There is a challenge to make sure there is standardisation, reliability and that this is aligned with the requirements of the accreditation. Institutions need flexibility and, at the same time, have a strong quality-assurance mechanism (Ghosh & Sankar, 2025).

9. Recommendations

9.1 Policy-Level Recommendations

OBE under NEP 2020 requires clear and consistent guidelines on its implementation, monitoring frameworks, and long-term funding to support the success of OBE implementation.

9.2 Institutional and Curriculum Reforms

The institutions ought to enhance the curriculum planning activities, encourage interdisciplinary cooperation, and embrace systematic outcome mapping (Chutia *et al.*, 2022).

9.3 Faculty Development and Training Initiatives

Professional development programmes, to be held regularly, should be aimed at establishing faculty competence in OBE pedagogy, assessment, and integrating technology.

9.4 Strengthening Assessment and Quality Assurance

Quality and accountability should be emphasised by using strong assessment systems, applying digital tools, and aligning them with the accreditation standards (Oza & Khamar, 2024).

Conclusion

NEP 2020 represents a transformative shift in Indian education by embedding Outcome-Based Education at the core of teaching, learning, and assessment practices (Babu & Roy, 2023). By promoting learner-centric pedagogy, flexible curricula, continuous assessment, and technological integration, NEP 2020 aligns education with contemporary societal and workforce needs. While challenges in implementation persist, strategic policy support, institutional commitment, and faculty capacity building can ensure the successful realisation of OBE, ultimately enhancing the quality, relevance, and global competitiveness of Indian education.

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INTEGRATING TECHNOLOGY IN CLASSROOMS – OPPORTUNITIES AND CHALLENGES FOR TEACHERS

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Abstract

Integrating technology into modern classrooms is a transformative necessity, shifting the teacher's role from a primary information source to a mentor and facilitator of student-centered learning. Integrating technology into classrooms is a multifaceted process that involves more than just introducing hardware; it requires a strategic alignment of digital tools with pedagogical goals to enhance student outcomes and engagement. Integrating technology into the classroom has evolved from an experimental endeavor into a fundamental pedagogical shift. In 2025, artificial intelligence (AI), adaptive learning are redefining educational boundaries, offering teachers transformative ways to enhance learning while simultaneously introducing complex structural and psychological challenges.

Keywords: Technology Integration, Student-Centered Learning, Artificial Intelligence (AI), Adaptive Learning, Digital Pedagogy, Classroom Transformation.

1. Introduction

Technology integration transforms traditional teaching by creating dynamic, studentcentered environments, moving beyond simple substitution to fundamental changes in pedagogy, preparing students for a digitally-driven world by bridging opportunities and overcoming significant hurdles like training and access. Teachers are in the retirement age are not cop up with the new technology easily but integrating technology using in the classrooms should be a priority which allows educators to reinvest time into high value of activities like student mentorship & building a relationship.

Lack of training is the most common challenge to implementing integrated learning. Due to improper training, teachers find it difficult to teach students or create a structured curriculum by combining different aspects. Integrated learning can enhance student involvement by offering a more interconnected and pertinent educational experience. When various subjects are integrated, learners can observe the connections between them and their application in real-life scenarios, enhancing the material's appeal and involvement. In addition to teachers' personalities and beliefs on teaching, experience with the use of technological tools, support from the school, colleagues, the community, and students' parents might have potential impact on technology integration

2. Opportunities for Teachers

- A. Data-Informed Decision Making:** Learning analytics dashboards provide immediate insights into student performance, allowing teachers to identify learning gaps early and adjust their pedagogical strategies proactively. Data-informed decision-making (DIDM) is the process of using data, combined with experience, expertise, and context, to guide choices, balancing objective insights with human judgment rather than relying solely on intuition or pure data. It involves collecting, analyzing, and interpreting data to find patterns and trends, then integrating these findings with qualitative factors like market research, employee expertise, and strategic goals for a more holistic decision-making approach, leading to improved outcomes and reduced risk. Automation in teaching uses technology like AI, RPA, and software to handle repetitive tasks (grading, attendance, scheduling, data entry) and enhance learning through personalized content, freeing teachers for high-value activities like student interaction, mentorship, and complex lesson planning, improving efficiency, reducing burnout, and enabling data-driven instruction.
- B. Productivity & Automation:** AI tools and Learning Management Systems (LMS) like Canvas or Google Classroom automate administrative tasks such as grading, attendance, and resource distribution. This frees up teacher time for direct student interaction and addressing complex emotional or academic needs.
- C. Access to Resources:** Digital tools provide vast online libraries, e-books, and global connectivity, breaking down geographical barriers. Access to resources means the ability for individuals or groups to obtain essential goods, services, opportunities (like education, healthcare, finance, clean water, food), and support needed to survive, thrive, and participate fully in society, with fair access being a key aspect of social justice and equity, ensuring everyone has a chance to succeed despite differing backgrounds or needs. It involves both the availability of resources and the removal of barriers, whether economic, social, or systemic, that prevents equitable distribution.
- D. Real-Time Insights:** Learning analytics provide "imaginary crystal balls" that track student progress in real time, allowing teachers to intervene immediately when a student struggles before learning gaps widen. Learning analytics is the collection, analysis, interpretation and communication of data about learners and their learning that provides theoretically relevant and actionable insights to enhance learning and teaching
- E. Global Collaboration:** Digital tools facilitate projects that connect classrooms globally, fostering cultural understanding and 21st-century communication skills. Global collaborators for teachers involve international digital exchanges, professional learning networks which will be a key factor with students View.

3. Challenges for Teachers

- A. The Digital Literacy Gap:** Many educators feel unprepared for the rapid pace of technological change. Research from last 3 years highlights a critical need for "practice-oriented" professional development rather than purely theoretical training. Many teachers lack sufficient training in digital tools, with studies showing a large percentage of educators globally haven't received adequate computer-based teaching methods training. This gap leads to challenges in fostering student engagement and skills, especially in rural areas, requiring focused efforts in professional development.
- B. Educational Stress & digital illiteracy:** The shift toward AI-assisted teaching has induced "educational anxiety" among some teachers, who fear deport fictionalization or being replaced by algorithms. High digital literacy is a known moderator that reduces this stress. Educational anxiety among teachers regarding technology stems from fear of obsolescence, lack of training, pressure to integrate new tools like AI, and leading to stress, burnout, and reduced effectiveness, despite technology's potential benefits, with solutions focusing on robust digital literacy training, supportive leadership, and addressing survival anxiety.
- C. Privacy Risks:** Managing sensitive student data in AI ecosystems presents significant concerns regarding data security, algorithmic bias, and academic integrity. Ethical and privacy risks for teachers using technology in education are significant and multifaceted, involving issues from data security to professional boundaries and algorithmic bias. Teachers' personal information (e.g., email, location, photos) used in online platforms or communication tools can be collected, stored, and potentially misused or exposed through data breaches.
- D. Increased Informational Load:** While technology can save time, the initial "learning curve" and the need to troubleshoot technical issues can temporarily increase teacher workload and stress. Increased cognitive load in educational technology happens when digital tools overwhelm a student's limited working memory, leading to poor learning, often from poorly designed multimedia, digital distractions (social media), multitasking, or complex interfaces. AI can help by optimizing design, simplifying information, and offering personalized support.
- E. Infrastructure & Digital Divide:** Disparities in access to stable internet and high-quality devices remain a major barrier, particularly in rural or marginalized communities. Creating unequal learning opportunities, especially for low-income, rural, and marginalized groups, starkly highlighted by the pandemic's shift to online learning, impacting academic performance and future readiness

F. Increased Workload: Many educators report that adapting to new technologies initially increases their workload due to the time required for training, lesson redesign, and managing technical issues.

4. Dual Side Teaching Interactive First Approach

A. For Schools & Educational Institutions: Educational institutions need to shift from "one-size-fits-all" training to personalized, micro-session professional development that builds practical AI and data literacy which leads to a better interactive session on both sides.

B. For Teachers: To adopt basic to advanced technology by starting short term courses & incorporating one or two reliable tools that align with specific learning goals, gradually expanding their digital toolkit as confidence grows.

C. For Policy: Establish clear ethical guidelines and provide robust infrastructure support to ensure equitable access for all student populations. To adopt effective pedagogical policies, education systems must shift from rote learning to learner-centered, freeing educators to focus on student interaction, mentorship, and curriculum, ultimately boosting efficiency and improving outcomes by handling repetitive duties and providing data-driven insights.

5. Recommendations for Implementation

A. Start Small: Educators should begin by adding one intuitive tool at a time rather than overhauling the entire curriculum at once. They begin by focusing on one simple, useful tool that solves an immediate problem, rather than trying to learn everything at once, incorporating daily tech news, taking breaks to process, and gradually tackling bigger concepts like AI through small projects or open-source contributions to build skills incrementally

B. Align with Objectives: Tools must be chosen based on their ability to meet specific learning goals, not just for the sake of using technology. They can start by reading tech news from sites like TechCrunch or Mashable daily to keep updated of new developments. Contribute to opensource projects by tackling small requests to gain practical experience and build a portfolio.

C. Continuous Assessment: Teachers can regularly monitor the impact of technology on student performance and gather feedback to refine practices & aimed at providing real-time insights for teachers to tailor instruction and boost student engagement, making evaluation more efficient, inclusive, and aligned with 21st-century skills.

Conclusions of Modern Technology Integration

After Covid Pandemic & wrt NEP, Technology has fundamentally transformed the teacher's role from a traditional lecturer to a facilitator or Trainer. Adaptive learning platforms and AI-driven tutoring now allow for 24/7 personalized support, enabling students to learn at their own pace and addressing individual learning gaps in real-time. Tools such as Augmented Reality (AR) and

Virtual Reality (VR) have made abstract concepts more tangible through immersive simulations. Furthermore, AI-powered features like real-time translation and speech-to-text have significantly improved inclusivity for students with disabilities and multilingual learners. Effective integration requires ongoing professional development to ensure educators move beyond "tech for tech's sake" and toward pedagogically sound applications.

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भारतीय ज्ञान परंपरा : समाजशास्त्रीय आयाम

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गोषवारा

मानवाला आपल्या पूर्ण क्षमता वापरता येण्यासाठी, समान आणि न्याय समाज विकसित करून राष्ट्रीय विकासाला चालना देण्यासाठी शिक्षण हा महत्त्वपूर्ण पायाभूत घटक आहे. राष्ट्रीय शिक्षण धोरण, २०२० चे ध्येय आपल्या देशातील वाढत्या विकासात्मक आवश्यकतांवर उपाययोजना करणे हे असून भारताच्या परंपरा आणि मूल्ये यावर भर देऊन शैक्षणिक रचनेच्या सर्व पैलूंमध्ये बदल आणि सुधारणा अपेक्षित आहे. भारतीय ज्ञान प्रणाली ही एक समृद्ध आणि वैशिष्ट्यपूर्ण परंपरा असून ती व्यक्ती, समाज आणि विश्वाचे सर्वसमावेशक आकलन करून देणारी तसेच आधुनिक समाजासाठी शाश्वत व संतुलित जीवनशैलीचा प्रचार करणारी आहे. प्रस्तूत शोधनिबंध दुय्यम तथ्यसंकलनावर आधारित असून यामध्ये भारतीय ज्ञान प्रणाली (IKS) ही संकल्पना, भारताच्या परंपरा, संस्कृती आणि मूल्यव्यवस्थेशी सुसंगत अशा भारतीय ज्ञानप्रणालीचे महत्त्व आणि समाजशास्त्रीय परिप्रेक्ष्यातून भारतीय ज्ञान प्रणालीचा समाजशास्त्राशी असणारा अजोड संबंध याविषयीचे विवेचन सादर केले आहे.

प्रस्तावना

भारतीय संस्कृती आणि जीवनशैलीचे सार सामावलेल्या भारतीय ज्ञान प्रणालीमध्ये वेद, उपनिषदे, तत्त्वज्ञान, आयुर्वेद, योग, ज्योतिष, कृषी, स्थापत्य, खगोल, गणित, वैद्यकशास्त्र विज्ञान, वास्तूशास्त्र अशा अनेक अंगांचा समावेश होतो. हजारो वर्षांच्या प्रगल्भ इतिहासातून विकसित झालेल्या या ज्ञान परंपरेने केवळ भारतालाच नव्हे तर जगाला ज्ञान, तत्त्वज्ञान आणि तंत्रज्ञान यांचा अमूल्य ठेवा दिला आहे. व्यापक आणि विविधतेने नटलेल्या या ज्ञान प्रणालीमध्ये मानवी जीवनाच्या शारिरीक, मानसिक, बौद्धिक, नैतिक, अध्यात्मिक उन्नतीचा मार्ग समाविष्ट आहे. भारत हा हजारो वर्षांच्या कालावधीत विकसित झालेल्या कला, साहित्य, भाषिक अभिव्यक्ती, रुढी, परंपरा, प्राचीन वस्तू, वारसा स्थळे अशा अनेक स्वरूपात व्यक्त झालेल्या संस्कृतीचा खजिना आहे.

अभ्यासाची उद्दिष्टे

- (१) भारतीय ज्ञान प्रणाली (IKS) ही संकल्पना समजून घेणे.
- (२) राष्ट्रीय शिक्षण धोरण, २०२० (NEP, 2020) च्या अनुषंगाने भारताच्या परंपरा, संस्कृती आणि मूल्यव्यवस्थेशी सुसंगत अशा भारतीय ज्ञान प्रणालीचे महत्त्व समजून घेणे.
- (३) भारतीय ज्ञान प्रणालीची (IKS) समाजशास्त्राशी असणारी सांगड जाणून घेणे.

तथ्यसंकलनाचे स्रोत

प्रस्तूत अभ्यासासाठी तथ्यसंकलनाच्या दुय्यम साधनांचा अवलंब करण्यात आला असून त्यासाठी संदर्भग्रंथ, संशोधन लेख, इंटरनेट संबंधित स्थळे आणि भारत सरकारच्या शिक्षण मंत्रालयाकडून प्रकाशित केलेले राष्ट्रीय शैक्षणिक धोरण, २०२० चा अहवाल या माध्यमातून माहितीचे संकलन करण्यात आले आहे.

भारतीय ज्ञान प्रणाली (IKS) ची संकल्पना

भारतीय ज्ञान प्रणाली ही जगातील सर्वात प्राचीन ज्ञान परंपरा असून या प्रणालीने मानवाच्या सर्वांगीण विकासाला महत्त्व दिले आहे. विज्ञान आणि अध्यात्म यांचा समन्वय हा भारतीय ज्ञान प्रणालीचा गाभा आहे. भारतीय ज्ञान प्रणाली बौद्धिक आणि वैज्ञानिकच नव्हे तर नैतिकता, समाजशास्त्र आणि सांस्कृतिक मूल्यांनाही समान महत्त्व देते. भारतीय ज्ञान परंपरेने ज्ञानाचे वर्गीकरण 'अपरा विद्या' आणि 'परा विद्या' असे केले आहे. अपरा विद्या म्हणजे भौतिक ज्ञान किंवा लौकिक विद्या आणि परा विद्या म्हणजे अध्यात्मिक ज्ञान, अपरा विद्या जीवनाच्या व्यावहारिक अंगांना समजून घेण्यास मदत करते तर परा विद्या आत्म्याशी संबंधित असून उपनिषदांमध्ये याचे वर्णन 'ब्रह्मविद्या' असे केले आहे.

भारतीय ज्ञान प्रणाली ही एक समृद्ध आणि वैशिष्ट्यपूर्ण परंपरा असून यामध्ये पारंपारिक आणि प्राचीन ज्ञानाची विस्तृत श्रेणी समाविष्ट आहे. त्यात वेद, औषध आणि आरोग्याची पारंपारिक प्रणाली सामावलेले 'आयुर्वेद' समाजकल्याणासाठी शारिरीक, मानसिक आणि अध्यात्मिक पध्दतींचा स्वीकार करणारा 'योग', प्राचीन गणित आणि भूमितीचे दैनंदिन महत्त्व मांडण्याचा प्रयत्न केलेले 'गांधार', प्राचीन तर्कशास्त्र आणि ज्ञानशास्त्राचा मेळ घातलेले 'न्याय', प्राचीन कला आणि सौंदर्यशास्त्र यांचा सखोल अभ्यास करण्याचा प्रयत्न करणारे नाट्यशास्त्र अशा अनेक ज्ञानशाखांचा समावेश होतो. भारतीय ज्ञान प्रणालीच्या माध्यमातून प्राचीन ज्ञान परंपरेची सांगड आजच्या शिक्षण प्रणालीशी घालण्याचा प्रयत्न केला आहे.

राष्ट्रीय शिक्षण धोरण, २०२० आणि भारतीय ज्ञान परंपरा

भारतीय ज्ञान प्रणाली (IKS) ही एक संघटित आणि ज्ञान हस्तांतरणाची एक पध्दत असून वैदिक साहित्य, उपनिषद, वेद, उपवेद यांचा समावेश यामध्ये होतो. ऑक्टोबर २०२० मध्ये नवी दिल्ली येथे स्थापित झालेली भारतीय ज्ञान प्रणाली ही भारत सरकारच्या शिक्षण मंत्रालयाचा एक विभाग असून स्वदेशी भारतीय ज्ञान प्रणालींना प्रोत्साहन देण्याचे कार्य या विभागामार्फत होत आहे. प्रत्येक विद्यार्थ्याला ज्ञानकेंद्रित भारतीय मूल्यांमधून विकसित आणि दर्जेदार शिक्षण देणे, भारताच्या परंपरा आणि सांस्कृतिक वारसा जपला जाणे आवश्यक आहे. राष्ट्रीय शिक्षण धोरण, २०२० मध्ये भारतीय ज्ञान परंपरेवर भर देण्यात आला आहे. सुसंस्काराबरोबर मातृभाषा आणि शारिरीक शिक्षण याचाही सांगोपांग विचार या नव्या शैक्षणिक धोरणाच्या अनुषंगाने करण्यात आला आहे.

राष्ट्रीय शिक्षण धोरण २०२० हे २१ व्या शतकातील असे धोरण आहे, ज्याचे उद्दिष्ट आपल्या देशातील वाढत्या विकासात्मक उपाययोजना लक्षात घेऊन त्यावर संशोधन व उपाययोजना करणे हे आहे. या राष्ट्रीय शैक्षणिक धोरणाची महत्त्वपूर्ण बाब म्हणजे भारतीय मूल्यांपासून विकसित केलेली, सर्वांना उच्च-गुणवत्तेचे शिक्षण उपलब्ध करून देणारी, विद्यार्थ्यांमध्ये मूलभूत कर्तव्ये, घटनात्मक मूल्यांविषयी तीव्र आदर व स्वतःच्या जबाबदाऱ्या व कर्तव्ये यांचे ज्ञान करून देणारी मूल्ये विकसित करणे. भारतीय ज्ञान परंपरा व्यक्ती, समाज आणि विश्वाचे सर्वसमावेशक आकलन करून देणारी तसेच आधुनिक समाजासाठी सर्वसमावेशक, शाश्वत व संतुलित जीवनशैलीचा प्रचार करणारी आणि मौल्यवान अंतर्दृष्टी प्रदान करणारी आहे. यात प्रामुख्याने तत्त्वज्ञान, अध्यात्म आणि धर्म, विज्ञान आणि तंत्रज्ञान, संगीत, शिल्प, सामाजिक विज्ञान, पर्यावरण विज्ञान, तर्कशास्त्र, खगोलशास्त्र अशा वैविध्यपूर्ण बहुविद्याशाखीय ज्ञानपरंपरा समाविष्ट होतात, ज्या भारतीय ज्ञानाची सखोलता दर्शवितात. प्राचीन विचारसरणी आधुनिक काळासाठी मौल्यवान मार्गदर्शक ठरते. प्राचीन ज्ञानपरंपरेचा अभ्यास केल्याने भारताचा समृद्ध वारसा तर कळतोच शिवाय आधुनिक विचार पध्दतीवर त्याचा असणारा प्रभाव समजायला ही मदत होते.

समाजशास्त्र (Sociology) आणि भारतीय ज्ञान प्रणाली (IKS)

भारतीय ज्ञान प्रणाली व्यापक, सर्वसमावेशक व जीवनाच्या सर्व बाजूंना स्पर्श करणारी आहे. धर्मशास्त्र, स्मृती, पुराणे आणि नीतीग्रंथ या माध्यमातून धर्म, नीतीमूल्ये, कर्तव्य, समाजाबद्दलचे उत्तरदायित्व यांचा सखोल विचार केलेला आहे. शिक्षणाचा प्रचार आणि समाजसुधारणा हा भारतीय ज्ञानप्रणालीचा एक महत्त्वपूर्ण भाग आहे. तक्षशिला, नालंदा, विक्रमशिला, कांची अशा प्राचीन भारतीय विद्यापीठांनी कला, तत्त्वज्ञान, विज्ञान अशा क्षेत्रमध्ये महत्त्वपूर्ण योगदान दिले आहे. भारतीय ज्ञान परंपरेने धर्म, कर्तव्य, नैतिकता, सामाजिक जबाबदारी यांचा प्रचार केला आहे. समाजशास्त्राच्या अभ्यासविषयात संस्कृती हा घटक महत्त्वपूर्ण असून भारतीय संस्कृतीच्या इतिहासाचा अभ्यास करायचा असेल तर तो वैदिक संस्कृतीच्या अध्ययनाशिवाय अपूरा ठरतो. वैदिक संस्कृती ही भारतीय संस्कृतीचा मूळ गाभा आहे. या संस्कृतीचा कालखंड प्रदीर्घ असल्याने त्याचे दोन भाग पाडण्यात आले आहेत. यातील पहिल्या भागाला पूर्व वैदिक काळ (ऋग्वेदकाळ) व दुसऱ्या भागाला उत्तर वैदिक काळ (ब्राह्मणकाळ) असे संबोधले जाते. ऋग्वेद, यजुर्वेद सामवेद, अथर्ववेद हे प्राचीन भारतीय ज्ञान प्रणालीचे मूळ आधारस्तंभ असून भारतातील प्राचीन काळातील सामाजिक, सांस्कृतिक, धार्मिक, आर्थिक जीवनाचा समग्र दृष्टिकोन वेदकालीन जीवनामध्ये समाविष्ट होतो.

संतांच्या शिकवणूकीचा फार मोठा प्रभाव समाजजीवनावर होता. महाराष्ट्रातील वारकरी संप्रदायाचा इतिहास हा संत परंपरेशी जोडला असून समाजसुधारणेचे तत्त्व समाजमनावर बिंबवून समाजात समता, बंधुभाव, सहिष्णुता, नैतिकता, अहिंसा, सत्य, त्याग या मूल्यांवर प्रकाश टाकणारा आहे. वारी हा धार्मिक उत्सव असून तो सामाजिक एकतेचा महान संदेश देणारा आहे. जर्मन समाजशास्त्रज्ञ मैक्स वेबरने तर 'The Protestant Ethic and the spirit of Capitalism' या ग्रंथात धर्माचा संबंध अर्थसंस्थेशी जोडला असून पाश्चिमात्य समाजामध्ये जी भांडवलशाही समाजव्यवस्थेची प्रवृत्ती उदयास आली त्यावर प्रोटेस्टंट पंथातील नीतीतत्त्वांचा प्रभाव कशाप्रकारे पडला याचे विवेचन प्रसूत केले आहे.

नागर समाजशास्त्र हे नगरातील लोकांच्या जीवनाचा अभ्यास करते. नगरे ही प्राचीन काळापासून मानवाच्या सभ्यतेची (Civilization) केंद्र असल्याचे आढळते. जगातील विविध प्राचीन सभ्यतांचा (उदा. सिंधू संस्कृती) उदय व विकास हा नगरातच झालेला आहे. हडप्पा संस्कृती ही प्राचीन भारतीय संस्कृती असून ती अत्यंत विकसित शहरी सभ्यता होती. जी इंडस व्हॅली सिव्हिलायझेशन म्हणूनही ओळखली जाते. आरोग्याच्या समाजशास्त्राच्या दृष्टीने मानसिक ताण, चिंता, शारिरीक व्याधी यांना सामोरे जाताना भारतीय ज्ञान प्रणालीतील योग, ध्यान-धारणा, आयुर्वेद, यासारखे उपाय आरोग्यवर्धक जीवनशैलीसाठी मार्गदर्शक ठरतात. पर्यावरणीय समाजशास्त्राने शाश्वत विकासावर भर दिला असून मानव आणि निसर्ग यांच्यात संतुलन राखण्यासाठी भारतीय तत्त्वज्ञान मार्गदर्शक ठरते.

अशाप्रकारे भारतीय ज्ञान प्रणालीची गरज समाजाच्या सर्व स्तरांवर असून जीवनाच्या विविध अडचणींवर मात करून संतुलित आणि आरोग्यदायी जीवन जगण्यासाठी ही ज्ञान प्रणाली अत्यंत उपयुक्त आहे. याचे ज्ञान केवळ प्राचीन काळापुरतेच मर्यादित नव्हते तर आजच्या आधुनिक जगातही त्याचे मार्गदर्शन आणि उपयुक्तता अपरंपार साहे.

निष्कर्ष

(१) भारतीय ज्ञान प्रणाली (IKS) ही एक संघटित आणि ज्ञान हस्तांतरणाची एक पध्दत असून नवीन शैक्षणिक धोरणाच्या (NEP, 2020) माध्यमातून स्वदेशी भारतीय ज्ञान प्रणालींना त्यामुळे प्रोत्साहन मिळत आहे.

- (२) मौखिक परंपरा, हस्तलिखिते, शिलालेख अशा विविध माध्यमांतून जपलेल्या या ज्ञानपरंपरेत खंड पडल्याने ती आजच्या पिढीपर्यंत पोहोचू शकली नव्हती पण IKS च्या माध्यमातून त्याचा नव्याने प्रचार व प्रसार होण्यास मदत होईल.
- (३) भारतीय ज्ञान प्रणाली भारताच्या परंपरा व सांस्कृतिक वारसा जपण्यास सहाय्यभूत ठरेल.
- (४) उच्च गुणवत्तेच्या शिक्षणाबरोबरच विद्यार्थ्यांमध्ये मूलभूत कर्तव्ये, घटनात्मक मूल्यांविषयी आदर निर्माण करून त्यांच्यात ज्ञान, कौशल्ये व स्वतःच्या जबाबदाऱ्या व भूमिका यांची जाणीव करून देणे NEP, 2020 व IKS या माध्यमातून साध्य होत आहे.
- (५) समाजशास्त्रीयदृष्ट्या भारतीय ज्ञान परंपरेने धर्म, कर्तव्य, नैतिकता सामाजिक जबाबदारी यांचा प्रचार केला असून समाजशास्त्रातल्या अनेक शाखा भारतीय ज्ञान प्रणालीशी जोडल्या गेलेल्या आहेत.

संदर्भ

- (१) वाघ शैलेशकुमार, सोनवणे सिध्दार्थ, पाटील मुकेश, खैरनार सुभाष (२०२४) 'भारतीय ज्ञान प्रणाली' अथर्व पब्लिकेशन्स, धुळे, पृष्ठ १ ते ४५.
- (२) चौधरी प्र. का., (२००२) 'प्राचीन भारताचा इतिहास व संस्कृती, विद्या बुक्स पब्लिशर्स, औरंगाबाद, पृष्ठ ९१-१५७.
- (३) मांडवकर पवन, (२०२४) 'भारतीय ज्ञान परंपरा आणि राष्ट्रीय शैक्षणिक धोरण
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- (४) राष्ट्रीय शिक्षण धोरण, २०२०, शिक्षण मंत्रालय, भारत सरकार अहवाल.

NEP 2020 मध्ये OE, SEC आणि CC यांची भूमिका:

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सारांश

नवीन राष्ट्रीय शैक्षणिक धोरण 2020 (NEP 2020) हे भारतीय शिक्षणव्यवस्थेतील एक ऐतिहासिक परिवर्तन मानले जाते. या धोरणाचा केंद्रबिंदू विद्यार्थ्यांच्या सर्वांगीण विकासावर आधारित कौशल्य-केंद्रित, लवचिक आणि बहुविषयक शिक्षणप्रणाली उभारणे हा आहे. पारंपरिक ज्ञानाधिष्ठित शिक्षणाच्या मर्यादा ओलांडून विद्यार्थ्यांमध्ये 21 व्या शतकातील आवश्यक कौशल्ये विकसित करण्यासाठी NEP 2020 मध्ये Open Elective (OE), Skill Enhancement Course (SEC) आणि Co-Curricular Course (CC) या अभ्यासक्रम घटकांचा समावेश करण्यात आला आहे. प्रस्तुत संशोधन पेपरचा उद्देश या तीन घटकांची विद्यार्थ्यांच्या बौद्धिक, व्यावसायिक, सामाजिक व वैयक्तिक कौशल्य विकासातील भूमिका अभ्यासणे हा आहे. या अभ्यासात गुणात्मक संशोधन पद्धतीचा अवलंब करण्यात आला असून राष्ट्रीय शैक्षणिक धोरण 2020, UGC मार्गदर्शक तत्त्वे, शैक्षणिक अहवाल, संशोधन लेख आणि संबंधित साहित्याचा आशय-विश्लेषण पद्धतीने अभ्यास करण्यात आला आहे. OE च्या माध्यमातून विद्यार्थ्यांमध्ये बहुविषयक दृष्टीकोन, समीक्षात्मक विचारक्षमता आणि समस्या-निराकरण कौशल्यांचा विकास होतो, हे या अभ्यासातून स्पष्ट होते. SEC अभ्यासक्रम विद्यार्थ्यांना रोजगाराभिमुख, व्यावहारिक व उद्योगोपयोगी कौशल्ये प्रदान करून त्यांची रोजगारक्षमता आणि उद्यमशीलता वाढवितात. तसेच CC अभ्यासक्रम विद्यार्थ्यांच्या शारीरिक, मानसिक, सामाजिक व नैतिक विकासाला चालना देत नेतृत्वगुण, सामाजिक जबाबदारी आणि जीवनकौशल्ये विकसित करण्यास महत्त्वाची भूमिका बजावतात. संशोधनातून असे आढळून येते की OE, SEC आणि CC या तीनही घटकांचा एकत्रित परिणाम विद्यार्थ्यांना केवळ शैक्षणिकदृष्ट्या सक्षम न करता त्यांना जीवनोपयोगी, व्यावसायिकदृष्ट्या समर्थ आणि सामाजिकदृष्ट्या जबाबदार नागरिक म्हणून घडविण्यात मोलाचा ठरतो. तथापि, या अभ्यासक्रमांच्या प्रभावी अंमलबजावणीसाठी प्रशिक्षित शिक्षकवर्ग, संस्थात्मक पायाभूत सुविधा आणि उद्योग-शैक्षणिक सहकार्याची आवश्यकता असल्याचेही अधोरेखित करण्यात आले आहे. निष्कर्षतः, NEP 2020 अंतर्गत OE, SEC आणि CC या घटकांची प्रभावी अंमलबजावणी केल्यास भारतीय उच्च शिक्षणव्यवस्था अधिक कौशल्याधारित, समावेशक आणि भविष्याभिमुख बनू शकते.

१. प्रस्तावना

भारताचे राष्ट्रीय शैक्षणिक धोरण 2020 (NEP 2020) ही 34 वर्षांनंतर लागू करण्यात आलेली सर्वसमावेशक धोरणात्मक आराखड्याची घोषणा आहे, ज्याचा उद्देश शैक्षणिक प्रणालीमध्ये मूलभूत सुधारणा करणे आणि विद्यार्थ्यांची 21 व्या शतकातील कौशल्ये सक्षम करणे आहे. हे धोरण शिक्षण प्रक्रियेला अधिक लवचिक, कौशल्य-आधारित, अनुभव-आधारित आणि बहुविषयक बनविण्याचा प्रयत्न करते.

शासनाच्या धोरणानुसार, पारंपरिक 10+2 संरचनेऐवजी 5+3+3+4 मॉडेल तयार केले आहे ज्यात प्रत्येक शैक्षणिक स्तरावर

मुलभूत कौशल्ये विकसित केली जातात. त्यानुसार, उच्च शिक्षणात विद्यार्थ्यांना त्यांच्या पसंतीनुसार विविध अभ्यासक्रम निवडण्यासाठी संधी देण्यात आली आहे ज्यामुळे ते मल्टीडिसिप्लिनरी आणि व्यावहारिक कौशल्ये आत्मसात करू शकतात.

२. NEP 2020 चा कौशल्य-आधारित शिक्षणाकडे झुकाव

NEP 2020 चे एक प्रमुख वैशिष्ट्य हे आहे की ते शिक्षण प्रक्रियेत कौशल्य-आधारित अभ्यासक्रम आणि प्रयोजनेसाठी योग्य व्यावसायिक कौशल्ये समाविष्ट करण्यावर जोर देते. हे धोरण पुढील तत्त्वांवर आधारित आहे:

- सांगाडे वाचन/लेखनाच्या पलीकडे वास्तव-जागरूक कौशल्ये विकसित करणे
- अवधि आधारित शिक्षणाऐवजी अनुभव-आधारित शिक्षण
- कार्य-क्षमता, तांत्रिक कौशल्ये आणि सर्जनशीलता वाढविणे
- विद्यार्थी-केंद्रित, लवचिक अभ्यासक्रमाची रचना

या तत्त्वांमुळे विद्यार्थ्यांना भविष्यातील रोजगारकुशलता व प्रतिस्पर्धात्मक जागतिक अर्थव्यवस्थेसाठी सज्ज केले जाते.

३. Open Elective (OE): बहुविषयक दृष्टीकोन आणि क्षमता विकसित करणे

३.१. OE ची व्याख्या व उद्दिष्ट

Open Elective (OE) हा असा अभ्यासक्रम आहे जो विद्यार्थ्यांना त्यांच्या मुख्य विषयाबाहेर भिन्न विषयांच्या सान्निध्यात शिकण्याची संधी देतो. हा अभ्यासक्रम मुख्य विषयाशी संबंधित नसला तरी तो बहुविषयक कौशल्ये, सृजनशीलता, नवीन ज्ञानविषयक दृष्टीकोन, तसेच संवाद कौशल्य, विश्लेषण क्षमता व समस्या-निवारण कौशल्ये विकसित करण्यास मदत करतो.

३.२. कौशल्ये आकारण्याची भूमिका

OE च्या माध्यमातून, विद्यार्थी वैयक्तिक आवडी, क्षमता वा करियर आकांक्षेनुसार विषयांची निवड करू शकतात. हे पुढील प्रकारच्या कौशल्यांचा विकास करते:

- समस्यांचे बहुआयामी विश्लेषण आणि निर्णय क्षमता
- संवाद व टीम-वर्क कौशल्ये
- ग्लोबल व सामाजिक मुद्द्यांचा व्यापक दृष्टीकोन
- व्यावहारिक जगात लागू होणारी सृजनशीलता

उदाहरणार्थ, आर्ट्स विद्यार्थ्यांनी विज्ञान-आधारित प्रतिस्पर्धा किंवा तंत्रज्ञान विषयांचे परिचयात्मक अभ्यास केले, तर विज्ञान विद्यार्थ्यांना इतिहास, भाषा किंवा अर्थशास्त्रातील कोर्स निवडता येतात. या प्रकारचा अभ्यास शिक्षणात पारंपरिक सीमांपेक्षा पुढे जाऊन कौशल्य विकसित करण्यात मदत करतो.

३.३. शिक्षण परिणाम

OE चे लाभ पुढीलप्रमाणे दिसतात:

- विद्यार्थ्यांना गोष्टींचा संदर्भ विस्तारण्याची क्षमता
- समावेशक शिक्षण वातावरण
- क्रॉस-डिसिप्लिनरी निर्णय कौशल्ये
- मल्टिटार्किंग आणि बहुस्थिती विचार क्षमतांचे विकास

या सर्वानी विद्यार्थी अभ्यासाच्या केवळ एकाच विशिष्ट क्षेत्रापुरते मर्यादित न राहता विस्तृत कौशल्ये आत्मसात करतात.

४. Skill Enhancement Courses (SEC): व्यावसायिक आणि जीवन-कौशल्ये

४.१. SEC ची व्याख्या व उद्दिष्ट

Skill Enhancement Course (SEC) हे अभ्यासक्रम विद्यार्थी-केंद्रित, प्रायोगिक आणि उद्योग-समर्थ कौशल्ये विकसित करण्यासाठी डिझाइन केलेले आहेत. हे कौशल्ये कठोर तांत्रिक ज्ञान, उद्यमत्व, व्यवहारिक कौशल्ये आणि नवीन-तंत्रज्ञानाचा वापर किंवा व्यवसायिक कौशल्ये आत्मसात करण्यास मदत करतात. सेक (SEC) चा मुख्य उद्देश:

- व्यवसायिक बाजारासाठी योग्यता वाढवणे
- उद्योग-संलग्न प्रशिक्षण आणि कौशल्ये
- डिजिटल व तंत्रज्ञान-आधारित कौशल्ये
- संवाद, नेतृत्व आणि संघ-कौशल्ये

५. Co-Curricular Courses (CC): सर्वांगीण विकास व सशक्त सामाजिक कौशल्ये

५.१. CC ची व्याख्या व उद्दिष्ट

Co-Curricular Courses (CC) हे अभ्यासक्रम परंपरागत विषयाच्या बाहेर योग, स्वास्थ्य, कला, संगीत, क्रीडा, NCC/NSS आणि सामाजिक-जीवनातील व्यावहारिक अनुभव यांचा समावेश करतात. हे अभ्यासक्रम विद्यार्थ्यांच्या मानसिक, शारीरिक व सामाजिक कौशल्यांचा विकास साधतात.

५.२. कौशल्ये व CC चे योगदान

CC चा विद्यार्थी विकासात पुढील महत्त्वाची भूमिका आहे:

- सामाजिक सहभाग व टीम-वर्क कौशल्ये
- आरोग्य, तणाव-नियंत्रण, आत्म-संयम व मानसिक शांति
- कलात्मक, सांस्कृतिक व शारीरिक शक्ति
- नागरिक जबाबदारी आणि नेतृत्व क्षमता

या अभ्यासक्रमामुळे विद्यार्थी केवळ पुस्तकी ज्ञानाचाच अवलंब करत नाही, तर जीवन-कौशल्ये, समाजसेवा व सकारात्मक सामाजिक भूमिकेचा अनुभव घेतात.

६. OE, SEC व CC चा एकत्रित परिणाम

NEP 2020 मध्ये OE, SEC आणि CC एकत्रितपणे विद्यार्थ्यांच्या कौशल्यांना पुढील प्रकारे आकार देतात:

६.१. एकात्मिक कौशल्ये निर्माण

हे तीनही गट पुढील कौशल्ये विकसित करतात:

- विचारशीलता व समस्या-निवारण
- प्रायोगिक व व्यावसायिक कौशल्ये
- सामाजिक व नेतृत्व क्षमता
- डिजिटल साक्षरता व नवोन्मेष
- व्यक्तिमत्व विकास व आत्म-विश्वास

या सर्वानी विद्यार्थ्यांना एक संतुलित शिक्षण अनुभव प्राप्त होतो जो आजच्या जागतिक रोजगार बाजारात आवश्यक

कौशल्यांसाठी उपयुक्त ठरतो.

७. अंमलबजावणी व आव्हाने

NEP 2020 चे OE, SEC आणि CC या अभ्यासक्रमांचे अंमलबजावणीत काही आव्हाने आहेत:

- शिक्षक प्रशिक्षणाची आवश्यकता
- संसाधनांचा अभाव व भौगोलिक विषमता
- उद्योग-शैक्षणिक सहकार्याची आवश्यकता
- ग्रामीण व दुर्लभ भागात प्रवेश व डिजिटल विभाजन

ही आव्हाने धोरणाच्या यशस्वी अंमलबजावणीत प्रमुख अडथळे आहेत, परंतु त्वरित उपाय व सहकार्यामुळे त्यावर मात करता येऊ शकते.

निष्कर्ष

OE, SEC आणि CC हे घटक NEP 2020 च्या कौशल्य-आधारित शिक्षणाच्या दृष्टीकोनचे हृदय आहेत. हे अभ्यासक्रम विद्यार्थ्यांना केवळ अकादमिक ज्ञान पुरवून मर्यादित ठेवत नाहीत, तर कौशल्य, अनुभव, व्यावसायिक तयारी व सामाजिक पात्रता यांचा समग्र विकास साधतात. त्यामुळे विद्यार्थी आजच्या वैश्विक, तंत्रज्ञान-समृद्ध व स्पर्धात्मक वातावरणात आत्मविश्वासाने सामोरे जातात. NEP 2020 च्या या तीन घटकांनी शिक्षणाला एक अधिक लवचिक, व्यवहारिक आणि भविष्य-सजग स्वरूप दिले आहे.

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उद्योजकता नेतृत्व विकासामध्ये राष्ट्रीय शिक्षण धोरणाची भूमिका

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गोषवारा

नेतृत्व आणि उद्योजकता समाजाच्या प्रगतीसाठी महत्त्वाची असून, राष्ट्रीय शिक्षण धोरण २०२०मुळे उद्योजकीय शिक्षणाला चालना मिळाली आहे. हे धोरण नवोपक्रम आणि कौशल्याधारित शिक्षणावर भर देऊन विद्यार्थ्यांमध्ये सर्जनशीलता आणि स्वयंपूर्णता विकसित करते. या संशोधनात उद्योजकतेतील नेतृत्वाचे महत्त्व, विद्यमान आव्हाने आणि जागतिक सर्वोत्तम उपाय विश्लेषित केले आहेत. तसेच, यशस्वी व्यवसाय मॉडेल्स आणि सरकारी उपक्रमांचे मूल्यमापन करून विद्यार्थ्यांमध्ये उद्योजकीय दृष्टिकोन आणि नेतृत्व कौशल्ये वाढवण्यासाठी प्रभावी धोरणांची रूपरेषा मांडली आहे.

मुख्य शब्द: नेतृत्व, उद्योजकता, स्टार्टअप इकोसिस्टम, नवोपक्रम, व्यवसाय नियोजन, कौशल्य-आधारित शिक्षण, जोखीम व्यवस्थापन.

प्रस्तावना

एकविसाव्या शतकातील राष्ट्रांच्या प्रगतीसाठी प्रभावी नेतृत्व आणि उद्योजकतेला चालना देणे आवश्यक आहे. भारतासारख्या तरुण देशासाठी नवनिर्मिती आणि उद्योजकतेत आघाडी मिळवण्याची मोठी संधी आहे. मात्र, पारंपरिक शिक्षण प्रणाली सर्जनशीलता आणि जोखीम घेण्यास मर्यादित राहते. सरकारच्या स्टार्टअप इंडिया, मेक इन इंडिया उपक्रमांना यश मिळवण्यासाठी शिक्षण संस्थांनी विद्यार्थ्यांना नेतृत्वगुण, समस्या सोडवण्याची कौशल्ये आणि व्यावसायिक ज्ञान विकसित करण्यावर भर द्यावा, जे भविष्यातील उद्योग आणि व्यवसायाच्या वाढीसाठी शिक्षण संस्थांची भूमिका अत्यंत महत्त्वपूर्ण ठरेल.

शोध निबंधाची उद्दिष्टे

- १. नेतृत्वाची भूमिका:** उद्योजकतेच्या यशात प्रभावी नेतृत्वाचा महत्त्वाचा वाटा असून, नवोपक्रम वाढीसाठी मजबूत नेतृत्व कौशल्ये आवश्यक आहेत याचे परीक्षण करणे.
- २. उद्योजकीय शिक्षणातील त्रुटी:** भारतातील विद्यमान उद्योजकता शिक्षणातील कमतरता ओळखून त्यावर उपाययोजना सुचवणे.
- ३. प्रभावी शिक्षण प्रणालींचे विश्लेषण:** भारत आणि अन्य प्रगत देशांतील उत्तम उद्योजकता शिक्षण पद्धतींचे अध्ययन करून त्यातील सर्वोत्तम पद्धती अधोरेखित करणे.
- ४. धोरणात्मक सुधारणा:** नेतृत्व आणि उद्योजकता वाढीसाठी आवश्यक धोरणात्मक हस्तक्षेप, अभ्यासक्रम सुधारणा आणि औद्योगिक सहकार्य वाढवण्याचे प्रस्ताव सुचवणे.
- ५. उद्योजकीय मानसिकता:** नवोपक्रम, जोखीम घेण्याची तयारी आणि स्वावलंबन यासाठी कौशल्याधारित प्रशिक्षण आणि मार्गदर्शनावर भर देणे.

वरील उद्दिष्टे साध्य करण्यासाठी सुचवलेल्या ठोस उपाययोजना भारताच्या आर्थिक व सामाजिक प्रगतीस चालना देतील.

प्रभावी नेतृत्व व उद्योजकता शिक्षणाच्या समन्वयाने शैक्षणिक क्षेत्रात व्यापक बदल घडवता येतील.

शोध निबंधाची गृहितके

प्रस्तुत संशोधन खालील गृहितकांवर आधारित आहे.

१. **उद्योजकीय यशासाठी प्रभावी नेतृत्व महत्त्वाचे:** उद्योगांच्या वाढीसाठी सक्षम नेतृत्व महत्त्वाचे आहे. नवोपक्रमशील दृष्टिकोन व निर्णयक्षमतेमुळे यश मिळते. त्यामुळे उद्योजकीय नेतृत्वाच्या विविध पैलूंचा सखोल अभ्यास करणे आवश्यक ठरते.
 २. **उद्योजकीय शिक्षणात सुधारणा:** विद्यमान शिक्षण प्रणालीत व्यावहारिक प्रशिक्षण अपुरे आहे, त्यामुळे सुधारणा आवश्यक.
 ३. **जागतिक मॉडेल्सचे मूल्यमापन:** विविध देशांच्या यशस्वी प्रणालींचा अभ्यास करून भारतासाठी योग्य उपाय शोधणे गरजेचे.
 ४. **धोरणात्मक सुधारणा:** नाविन्यपूर्ण अभ्यासक्रम व उद्योग-शिक्षण सहकार्य आवश्यक. शासन, शिक्षण संस्था आणि उद्योग क्षेत्र यांनी एकत्रितपणे कार्य करून आधुनिक उद्योजकीय शिक्षण प्रणाली विकसित करणे आवश्यक आहे.
 ५. **नवोपक्रम व जोखीम मानसिकता:** पारंपरिक शिक्षण बदलून प्रयोगशील व संशोधनाधारित प्रणाली विकसित करणे गरजेचे. विद्यार्थ्यांमध्ये नाविन्यपूर्ण विचारसरणी रुजवण्यासाठी शिक्षण प्रणालीत आमूलाग्र बदल करणे आवश्यक आहे.
- प्रस्तुत गृहितके भारतातील उद्योजकीय शिक्षण आणि नेतृत्व विकास सुधारण्यासाठी हे गृहितक मार्गदर्शक ठरू शकतात. संशोधनाच्या आधारावर प्रभावी धोरणे विकसित करून उद्योजकीय वातावरण अधिक सक्षम व प्रेरणादायी करता येईल.

केस स्टडीज (वास्तविक संदर्भाची सखोल तपासणी)

नेतृत्व आणि उद्योजकता शिक्षण प्रभावी करण्यासाठी नियोजित कार्यक्रम, प्रत्यक्ष अनुभव आणि मार्गदर्शन महत्त्वाचे असतात. राष्ट्रीय आणि आंतरराष्ट्रीय स्तरावर यशस्वी मॉडेल्स नवोपक्रम आणि व्यवसाय विकासाला प्रोत्साहन देतात.

अटल इनोव्हेशन मिशन (AIM) आणि स्टार्टअप इंडिया उपक्रम

नीती आयोगाच्या पुढाकाराने सुरू करण्यात आलेले अटल इनोव्हेशन मिशन (AIM) हे शालेय व विद्यापीठ स्तरावर नवोपक्रम आणि उद्योजकतेला प्रोत्साहन देतो. या अंतर्गत, अटल टिकरिंग लॅब्स (ATLs) विद्यार्थ्यांना रोबोटिक्स, AI श्री-डी प्रिंटिंग आणि उत्पादन विकासाचा प्रत्यक्ष अनुभव देतात.

अटल इनोव्हेशन मिशनचे परिणाम:

१) संपूर्ण भारतात १०,००० पेक्षा जास्त अटल टिकरिंग लॅब्स (ATLs) स्थापन करण्यात आल्या आहेत. या प्रयोगशाळांद्वारे विद्यार्थ्यांना बालपणापासूनच समस्यांचे समाधान शोधण्याची कला विकसित करता येते तसेच उद्योजकतेला प्रोत्साहन मिळते, ज्यामुळे त्यांचा सर्वांगीण विकास होतो. (१)

२) उदाहरण - ओडिशातील ATL मधील विद्यार्थ्यांनी स्वस्त जलशुद्धीकरण प्रणाली विकसित केली, ज्यामुळे त्यांनी राष्ट्रीय स्पर्धा जिंकली आणि पुढील विकासासाठी निधी मिळवली.

स्टार्टअप इंडिया उपक्रम:

२०१६ मध्ये सुरू झालेल्या स्टार्टअप इंडिया उपक्रमाने तरुण उद्योजकांना कर सवलती, भांडवली सहाय्य आणि सोपी नियमावली प्रदान करून मदत केली.

स्टार्टअप इंडिया उपक्रमाचा परिणाम:

भारतामध्ये ९२,०००+ स्टार्टअप्सना मान्यता मिळाली असून, १००+ स्टार्टअप्स युनिकॉर्न स्तरावर पोहोचले आहेत. मात्र, बिगर-महानगरी भागातील विद्यार्थ्यांसाठी निधी आणि मार्गदर्शन मिळवणे आव्हान ठरत आहे.

भारतीय संस्थांमधील उद्योजकता प्रणाली

भारतातील आयआयटी, आयआयएम आणि अन्य व्यावसायिक संस्थांमध्ये उद्योजकता वाढीसाठी विशेष कार्यक्रम राबवले जातात. हे उपक्रम विद्यार्थ्यांना नवकल्पना, प्रशिक्षण, उद्योग सहकार्य व वित्तीय मदत देऊन उद्योजक होण्यासाठी मदत करतात. यामुळे भविष्यातील उद्योजक घडण्यास मोठी मदत होईल.

आयआयटी बॉम्बेची सोसायटी फॉर इनोव्हेशन अँड एंटरप्रेन्योरशिप (SINE)

ही विद्यार्थ्यांच्या स्टार्टअप्ससाठी महत्त्वपूर्ण इनक्यूबेशन केंद्र आहे. येथे नवउद्योजकांना भांडवली निधी, कायदेशीर मदत आणि तज्ज्ञ मार्गदर्शन मिळते, ज्यामुळे त्यांचे स्टार्टअप विकसित होण्यास मदत होते.

यशोगाथा: आयआयटी बॉम्बेचे पदवीधर भाविश अग्रवाल यांनी स्थापन केलेली ओला कॅम्प ही भारतातील प्रमुख राइड-हेलिंग सेवा आहे. एसआयएनईच्या पाठिंब्यामुळे अशा स्टार्टअप्सना मजबूत आधार मिळतो आणि ते मोठ्या यशाची वाटचाल करू शकतात. आयआयएम बंगळूरुच्या नदाथुर एस. राघवन सेंटर फॉर एंटरप्रेन्योरियल लर्निंग (NSRCEL) हे भारतातील आघाडीचे स्टार्टअप इन्क्यूबेटर असून, त्यांनी ४००+ स्टार्टअप्सना मार्गदर्शन व २५० कोटीपेक्षा अधिक निधी उभारण्यास मदत केली आहे. प्रसिद्ध अन्न वितरण प्लॅटफॉर्म स्विगी याच केंद्रातून सुरू झाला.

ग्रामीण भारतातील व्यावसायिक प्रशिक्षण सेल्को फाउंडेशन

सेल्को फाउंडेशन ग्रामीण उद्योजकतेला चालना देण्यासाठी सौरऊर्जेवर आधारित प्रशिक्षण देते. विशेषतः ग्रामीण विद्यार्थ्यांसाठी असलेल्या या उपक्रमामुळे अनेक तरुणांनी सौरऊर्जेच्या मदतीने स्वतःचे व्यवसाय सुरू केले आहेत. यामुळे त्यांना आर्थिक स्थिरता मिळण्यासह स्थानिक पातळीवर रोजगाराच्या नव्या संधी उपलब्ध झाल्या आहेत.

आंतरराष्ट्रीय उत्कृष्ट पद्धती

भारत जागतिक प्रणालींकडून नेतृत्व व उद्योजकतेच्या शिक्षणाच्या उत्कृष्ट पद्धती शिकू शकतो, ज्या औपचारिक अभ्यासक्रमाचा महत्त्वपूर्ण भाग आहेत.

फिनलंडमधील उद्योजकीय शिक्षण मॉडेल

प्राथमिक स्तरापासून उद्योजकतेला प्रोत्साहन शिक्षण प्रणालीत उद्योजकीय कौशल्यांचा समावेश. प्रकल्पाधारित शिक्षण: विद्यार्थ्यांना नक्कल व्यवसाय चालवण्याची संधी, ज्यातून वित्त, विपणन आणि व्यवस्थापन कौशल्ये आत्मसात करतात. परिणाम: ४०% पेक्षा जास्त विद्यार्थी हायस्कूलपूर्वीच उद्योजकीय प्रकल्पांमध्ये सहभागी होत असल्याने व्यावसायिक कौशल्ये व अनुभव विकसित होतो.

इस्त्रायलचा 'स्टार्टअप नेशन' दृष्टिकोन

उद्योजकीय लष्करी प्रशिक्षण आणि विद्यापीठ नेतृत्वाखालील इनक्यूबेटर प्रणालीमुळे इस्त्रायल स्टार्टअप निर्मितीत आघाडीवर आहे.

टेक्नो युनिव्हर्सिटीतील उद्योजकीय अभ्यासक्रम

विद्यार्थ्यांना व्यावहारिक कौशल्ये आणि स्टार्टअप संधी देतात. ७०% हून अधिक पदवीधर विविध उपक्रमांमध्ये सहभागी

होतात. इस्रायल सरकार संशोधन व विकासाला मोठे प्रोत्साहन देत असून, जीडीपीच्या ४.५% निधी नवकल्पनांसाठी गुंतवते, जो जागतिक स्तरावर उच्च मानला जातो.

सिंगापूरचे सुरुवातीचे उद्योजकता प्रदर्शन

सिंगापूरने शिक्षण व्यवस्थेत उद्योजकतेला प्राधान्य दिले असून, शालेय स्तरावरच विद्यार्थ्यांमध्ये व्यवसायिक दृष्टिकोन विकसित करण्यासाठी विविध उपक्रम राबवले आहेत.

शालेय स्तरावरील एंटरप्राइझ शिक्षण:

विद्यार्थ्यांना व्यवसाय सुरू करण्याची संधी देते, ज्यामुळे त्यांना व्यवस्थापन, नवोपक्रम आणि नेतृत्वाचा प्रत्यक्ष अनुभव मिळतो.

सरकारी मदतीने बियाणे निधी (सीड फंडिंग):

सिंगापूर सरकार तरुण उद्योजकांना त्यांच्या स्टार्टअप संकल्पनांच्या विकासासाठी आर्थिक सहाय्य प्रदान करते. या हेतूने, सरकारने ५०,००० सिंगापूर डॉलर (अंदाजे ३७,००० अमेरिकन डॉलर) पर्यंत निधी उपलब्ध करून दिला आहे, जो नवीन व्यवसाय सुरू करण्यास मदत करतो. या आर्थिक पाठबळामुळे तरुणांना त्यांच्या कल्पनांना प्रत्यक्षात आणण्याची आणि उद्योग स्थापन करण्याची संधी मिळते. सिंगापूरच्या या धोरणामुळे उद्योजकता आणि नेतृत्वगुणांचे बीज रोवले जाते, जे भविष्यात देशाच्या आर्थिक आणि सामाजिक विकासास चालना देण्यास मदत करेल. (२)

केरळ स्टार्टअप मिशन (KSUM) शासकीय नेतृत्वाखालील इनक्युबेशन

राज्य सरकारच्या नेतृत्वाखालील स्टार्टअप इकोसिस्टम.

स्टार्टअप्स: ४,०००+ नोंदणीकृत स्टार्टअप्स कार्यरत.

मॉडेल: सार्वजनिक-खाजगी भागीदारीद्वारे भांडवली सहाय्य, मार्गदर्शन व पायाभूत सुविधा उपलब्ध.

परिणाम:

- १००+ विद्यार्थी स्टार्टअप्सना चालना.
- १०,०००+ थेट रोजगार संधी.
- राज्यातील उद्योजकतेला मोठी प्रेरणा.

भारतातील कृषी उद्योजकता

आधुनिक तंत्रज्ञान व नवकल्पना: भारतीय कृषी क्षेत्रात तंत्रज्ञान व उद्योजकतेच्या माध्यमातून सुधारणा केली जात आहे.

ICRISAT-ABI ची भूमिका:

- कृषी स्टार्टअप्स व लघु उद्योगांना सहकार्य.
- वित्तपुरवठा, मार्गदर्शन, संशोधन व विकासासाठी मदत.

कृषी क्षेत्रातील संधी: प्रक्रिया उद्योग, जैविक शेती, अन्न तंत्रज्ञान, कृषी यांत्रिकीकरण यास प्रोत्साहन.

उदाहरण: हवामान-नियंत्रित हरितगृह तंत्रज्ञान विकसित, ज्यामुळे शेतकऱ्यांच्या उत्पन्नात ३००% वाढ.

निष्कर्ष आणि भविष्यातील व्याप्ती

भारताकडे जागतिक स्तरावर उद्योजकता आणि नवोपक्रमात नेतृत्व करण्याची क्षमता आहे. योग्य सुधारणा केल्यास, भारत

शिक्षण व उद्योजकतेतील दरी भरून नवी शिखरे गाठू शकतो.

मुख्य मुद्दे

१. शालेय पातळीपासून उद्योजकतेचे शिक्षण देऊन व्यावसायिक कौशल्ये विकसित होतील.
२. राष्ट्रीय मार्गदर्शन प्रणाली, स्टार्टअप हब आणि उद्योग सहकार्य नवोपक्रमाच्या वाढीस महत्त्वाचे घटक ठरतील.
३. स्टार्टअप्ससाठी भांडवल, कर सवलती व प्रोत्साहन आवश्यक.
४. नवकल्पना, प्रयोगशीलता आणि जोखीम घेण्याची मानसिकता वाढवून सक्षम उद्योजकीय वातावरण तयार होईल.

सध्याची तफावत आणि शिफारशी

भारतातील शिक्षण व्यवस्थेत नेतृत्व व उद्योजकतेचा प्रभावी समावेश करण्यासाठी धोरणात्मक सुधारणा, अभ्यासक्रम अद्ययावत करणे, मार्गदर्शन उपक्रम आणि सार्वजनिक-खाजगी सहकार्य आवश्यक आहे.

१) शालेय व उच्च शिक्षणाच्या अभ्यासक्रमात उद्योजकतेचा समावेश करणे विद्यार्थ्यांना व्यवसाय उभारणीच्या मूलभूत संकल्पना शिकवाव्यात. यात व्यवसाय नियोजन, जोखीम व्यवस्थापन, वित्तपुरवठा, नाविन्य आणि बाजारातील संधी ओळखण्याचे कौशल्य विकसित करावे.

सध्याची तफावत

अ) असोचॅम २०२३ च्या अहवालानुसार, भारतातील केवळ १५% विद्यापीठे उद्योजकतेसाठी विशेष अभ्यासक्रम उपलब्ध करून देतात. (३)

ब) ग्लोबल एंटरप्रेन्योरशिप मॉनिटर (GEM) २०२२ च्या अहवालानुसार, शालेय स्तरावर उद्योजकीय शिक्षणाच्या बाबतीत भारताचा समावेश जगातील ६०% पेक्षा कमी प्रगत अर्थव्यवस्थांमध्ये केला गेला आहे. (४)

शिफारसी

अ) उद्योजकता: शिक्षण व्यवस्थेचा महत्त्वाचा भाग

शाळांमध्ये इयत्ता ८ वीपासूनच आर्थिक साक्षरता, व्यवसाय नियोजन, नवोपक्रम आणि जोखीम व्यवस्थापन यांसारखे विषय अनिवार्य केल्यास विद्यार्थ्यांमध्ये स्वावलंबनाची भावना विकसित होईल आणि उद्योजकतेसाठी आवश्यक कौशल्ये मिळतील. उदाहरणार्थ, फिनलंडमध्ये प्राथमिक स्तरावरच उद्योजकतेचा समावेश असल्यामुळे ४०% पेक्षा जास्त विद्यार्थी हायस्कूलपूर्वीच स्टार्टअप प्रकल्पांमध्ये सहभागी होतात. अशा शिक्षणामुळे व्यावसायिक दृष्टिकोन विकसित होऊन उद्योजकतेच्या संधी उपलब्ध होतात.

ब) व्यावहारिक व्यवसाय प्रकल्पांना चालना द्या

शाळा आणि महाविद्यालयांनी 'विद्यार्थी स्टार्टअप उपक्रम' राबवावेत, जिथे विद्यार्थी प्रत्यक्ष व्यवसाय संकल्पना विकसित करून सादर करतील. अशा उपक्रमांमुळे त्यांना नवोपक्रम, व्यावसायिक विचारसरणी आणि उद्योजकतेची कौशल्ये मिळतील. उदाहरणार्थ, सिंगापूरमधील युथ एंटरप्राइझ अकादमी दरवर्षी ५००+ स्टार्टअप सुरू करण्यास शालेय विद्यार्थ्यांना मदत करते.

क) व्यावसायिक प्रशिक्षण आणि डिजिटल उद्योजकता

भारतातील एडटेक क्षेत्र झपाट्याने वाढत असून, २०२५ पर्यंत त्याचे मूल्य ३० अब्ज डॉलर्सपर्यंत पोहोचण्याची शक्यता आहे. यामुळे अनॅकॅडेमी, बायजू, कोर्सेरा यांसारख्या डिजिटल शिक्षण मंचांसोबत भागीदारी करून उद्योजकतेसाठी ऑनलाइन प्रशिक्षणाच्या संधी वाढू शकतात. तसेच, प्रधानमंत्री कौशल्य विकास योजनेत तंत्रज्ञानाधारित आणि हरित उद्योजकता

प्रशिक्षणाचा समावेश करून नवउद्योजकांना आधुनिक कौशल्ये मिळविण्यास मदत होईल, तसेच टिकाऊ व्यवसाय निर्माण करण्यास चालना मिळेल.

नेतृत्व विकास कार्यक्रम आणि मार्गदर्शन उपक्रम सध्याची तफावत

औपचारिक मार्गदर्शनाची कमतरता: नीती आयोगाच्या २०२२ च्या सर्वेक्षणानुसार, फक्त १२% विद्यार्थ्यांना औपचारिक मार्गदर्शन सुविधा मिळतात. पहिल्यांदाच उद्योजक होणाऱ्या ७७% विद्यार्थ्यांना अनुभवी मार्गदर्शकांची कमतरता जाणवते. जागतिक तुलनेत मागे: अमेरिका, इस्रायलसारख्या देशांच्या तुलनेत भारतात विद्यार्थ्यांना कमी मार्गदर्शन मिळते. उद्योजकतेवर परिणाम: मर्यादित मार्गदर्शनामुळे भारतातील स्टार्टअप्सच्या वाढीवर विपरीत परिणाम होतो.

शिफारसी

- १) भारताने 'राष्ट्रीय विद्यार्थी उद्योजकता मार्गदर्शन कार्यक्रम (NSEMP)' सुरू करावा, जो विद्यार्थ्यांना थेट उद्योग तज्ज्ञांशी जोडेल. या उपक्रमाद्वारे त्यांना व्यावसायिक मार्गदर्शन, उद्योग संधी आणि नवोपक्रमासाठी आवश्यक कौशल्ये मिळू शकतील. सध्या 'मार्गदर्शक भारत' उपक्रम कार्यरत असला तरी, ग्रामीण आणि टियर-२, टियर-३ शहरांतील विद्यार्थ्यांसाठी त्याचा विस्तार गरजेचा आहे. NSEMPमुळे देशभरातील तरुणांना उद्योजकतेसाठी आवश्यक संसाधने आणि मार्गदर्शन मिळू शकेल.
- २) नेतृत्व विकासाला चालना देण्यासाठी उद्योग आणि शैक्षणिक संस्थांमधील सहकार्य वाढवणे आवश्यक आहे. यासाठी भारतातील प्रमुख १०० विद्यापीठांनी उद्योजक निवास (Entrepreneur-in-Residence - EIR) कार्यक्रम सुरू करावा. या उपक्रम अंतर्गत यशस्वी उद्योजक थेट विद्यार्थ्यांशी संवाद साधून त्यांना मार्गदर्शन करतील आणि त्यांचे कौशल्य विकसित करण्यास मदत करतील. उदाहरणार्थ, आयआयटी दिल्लीच्या EIR कार्यक्रमांमुळे २०० पेक्षा अधिक स्टार्टअप्सना मदत मिळाली आहे, ज्यामुळे नवउद्योजकांना व्यवसाय सुरू करण्यासाठी आवश्यक पाठबळ मिळाले आहे. (५)
- ३) नेतृत्व बूट कॅम्प आणि हॅकेथॉन शाळा व महाविद्यालयांनी राष्ट्रीय स्तरावर हॅकेथॉनचे आयोजन करून विद्यार्थ्यांच्या समस्या सोडविण्याच्या क्षमतेला व नेतृत्वगुणांना चालना द्यावी. अशा उपक्रमांमुळे त्यांना वास्तविक आव्हानांचा सामना करण्याची संधी मिळते. उदाहरणार्थ, स्मार्ट इंडिया हॅकेथॉनद्वारे हजारो विद्यार्थ्यांनी औद्योगिक समस्या सोडवण्यात योगदान दिले आहे. यामुळे नवकल्पना, तांत्रिक कौशल्ये आणि उद्योगांशी संवादाची संधी मिळून भविष्यातील सक्षम नेतृत्व विकसित होते.

सार्वजनिक-खाजगी भागीदारी मजबूत करणे

सध्याची तफावत

- १) भारत आपल्या GDP च्या फक्त ०.६२% संशोधन आणि उद्योजकता विकासासाठी खर्च करतो, जो जागतिक स्तरावर कमी मानला जातो. तुलनेत, इस्रायल ४.५% आणि अमेरिका २.८% खर्च करतात. यामुळे भारताच्या संशोधन आणि नवउद्योजकतेच्या वाढीला मर्यादा येतात आणि जागतिक स्पर्धेत मागे पडण्याचा धोका निर्माण होतो.
- २) २०२३ च्या AICTE अहवालानुसार, भारतातील केवळ 25% पेक्षा कमी विद्यापीठांमध्ये इनक्यूबेटर किंवा स्टार्टअप सेल कार्यरत आहे. (६)

शिफारसी

- १) शैक्षणिक संस्थांमध्ये स्टार्टअप इनक्यूबेशन सेंटर्सचा विस्तार - सरकारने पुढील पाच वर्षांत किमान ५०० विद्यापीठांमध्ये स्टार्टअप हब्स स्थापन करण्याचे उद्दिष्ट ठेवावे. हे हब्स विद्यार्थ्यांना नवकल्पनांसाठी आवश्यक सुविधा, मार्गदर्शन आणि

आर्थिक मदत देतील. केरळ स्टार्टअप मिशनच्या यशस्वी अनुभवातून प्रेरणा घेतल्यास, देशभर अशा इनक्यूबेशन सेंटर्सचा विस्तार करून युवकांना उद्योजकतेसाठी भक्कम पाठबळ मिळू शकते.

२) विद्यार्थी स्टार्टअप्ससाठी कॉर्पोरेट प्रायोजकता - शैक्षणिक संस्थांमधील स्टार्टअप इनक्यूबेटर्समध्ये कॉर्पोरेट कंपन्यांनी गुंतवणूक वाढवावी यासाठी सरकारने प्रोत्साहन धोरणे राबवावीत. प्रत्येक संस्थेला किमान १० कोटींचा बियाणे निधी मिळावा, जेणेकरून नवीन स्टार्टअप्स विकसित होऊ शकतील. टाटा, रिलायन्स यांसारख्या कंपन्यांनी IIT, IIM सारख्या संस्थांमध्ये भांडवल गुंतवले आहे, ज्यामुळे झोमॅटो, रेडरपे यांसारखे युनिर्कॉर्न स्टार्टअप्स यशस्वी झाले. त्यामुळे विद्यार्थी उद्योजकतेला चालना देण्यासाठी सरकारी-खासगी भागीदारी महत्त्वाची ठरते.

३) विद्यापीठाच्या नेतृत्वाखालील स्टार्टअप्ससाठी कर सवलती - विद्यार्थ्यांनी स्थापन केलेल्या स्टार्टअप्ससाठी 'स्टार्टअप इंडिया' अंतर्गत पहिल्या पाच वर्षांसाठी करमाफी द्यावी, जेणेकरून त्यांना व्यवसाय वाढविता येईल. सिंगापूरमध्ये अशा सवलतींमुळे स्टार्टअप्सचा टिकाव दर वाढला आहे. भारतातही हे धोरण राबवल्यास तरुण उद्योजकांना आर्थिक स्थैर्य मिळेल आणि स्टार्टअप्स अधिक यशस्वी ठरतील.

जोखीम घेण्याची मानसिकता आणि नवकल्पनात्मक दृष्टिकोनाला चालना देणे

सध्याची तफावत

१) २०२३ च्या जागतिक जोखीम नियंत्रण निर्देशांकानुसार, भारतातील ७२% विद्यार्थ्यांना अपयशाची भीती वाटते, तर अमेरिका आणि इस्त्रायलमध्ये ही भीती फक्त ३०% विद्यार्थ्यांमध्ये दिसून येते.

शिफारसी

शाळा व महाविद्यालयांनी विद्यार्थ्यांमध्ये अपयश सहन करण्याची क्षमता आणि व्यावसायिक नवोपक्रम विकसित करण्यासाठी विशेष उपक्रम राबवावेत. यासाठी दोन महत्त्वाच्या संकल्पना लागू करता येऊ शकतात.

१) 'अपयशातून शिका' कार्यक्रम: शाळांनी विद्यार्थ्यांना दंडाशिवाय नवीन व्यावसायिक प्रयोग करण्यास प्रोत्साहन द्यावे, जेणेकरून ते अपयशातून शिकू शकतील आणि लवचिकता विकसित करू शकतील. उदा. स्टॅनफोर्ड विद्यापीठाचा 'अयशस्वी आठवडा' उपक्रम जोखीम व्यवस्थापन व नवकल्पनांना चालना देतो.

२) राष्ट्रीय व्यवसाय सिम्युलेशन स्पर्धा: महाविद्यालयांनी स्टार्टअप सिम्युलेशन प्रकल्प आयोजित करून विद्यार्थ्यांना आभासी कंपन्यांचे व्यवस्थापन शिकवावे. यामुळे उद्योगातील व्यवहारांची समज वाढेल आणि प्रत्यक्ष व्यवसाय सुरू करण्यापूर्वी अनुभव मिळेल. हार्वर्ड बिझनेस स्कूलच्या अशा उपक्रमांमुळे जागतिक स्तरावर हजारो उद्योजकांना प्रशिक्षण मिळाले आहे. हे उपक्रम विद्यार्थ्यांमध्ये उद्योजकतेची आवड निर्माण करून त्यांना यशस्वी व्यावसायिक होण्यासाठी सक्षम करतील.

समारोप

उद्योजकता आणि नेतृत्व आर्थिक वाढ आणि सामाजिक परिवर्तनासाठी महत्त्वाचे आहेत. भारतातील तरुण लोकसंख्येमुळे व्यावसायिक नवकल्पना घडवण्याची मोठी संधी आहे, मात्र सध्याची शिक्षण व्यवस्था प्रामुख्याने सैद्धांतिक ज्ञानावर भर देते. उद्योजकीय शिक्षणाचा अभाव, मार्गदर्शनाच्या मर्यादा आणि जोखीम घेण्याची भीती यामुळे अनेक अडथळे निर्माण होतात. फिनलंड, इस्त्रायल आणि सिंगापूरसारख्या देशांत उद्योजकतेसाठी लवकर तयारी केली जाते. भारतातील आयआयटी, आयआयएम आणि केरळ स्टार्टअप मिशनसारख्या संस्थांनी यशस्वी मॉडेल्स सादर केली आहेत. त्यामुळे शिक्षण व्यवस्थेत

उद्योजकता आणि नेतृत्व कौशल्यांचा समावेश करणे ही काळाची गरज आहे.

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भारतीयांच्या ज्ञानाचे प्रतिक छत्रपती शिवाजी महाराज

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प्रस्तावना

छत्रपती शिवाजी महाराज हे भारतीयांच्या ज्ञानाचे प्रतिक होत. छत्रपतींच्या स्वराज्याची तात्विक अधिष्ठाने होती. या त्यांच्या तात्विक अधिष्ठानामुळे छत्रपती जगाचे आदर्श ठरतात.त्यांनी संपूर्ण जगासमोर अलौकीक असा आदर्श ठेवला आहे. त्यांची विचारधारा ही त्यांच्या तात्विक अधिष्ठानाचा पाया आहे. छत्रपतींचे स्वराज्य हे सर्व मानव जातीचे कल्याणकारी शासन होते.त्यांच्या शासन व्यवस्थेला सर्वजनवादाचे तात्विक अधिष्ठान होते. छत्रपतींनी आपल्या कार्यकिर्दीत चांगली वागणूक, नीतीमत्ता, चारित्र्य याच तत्वांना व मूल्यांना नेहमी महत्व दिले.म्हणून राजे आदर्श शासन व्यवस्थेचे निर्माते ठरले.छत्रपतींच्या व्यक्तिमत्त्वात अनेक श्रेष्ठ पैलू आहेत.त्यामध्ये अनेक तत्वे व कर्तव्ये दिसतात.छत्रपतींचे हे सर्व पैलू मानवाला भविष्यात प्रेरणा देत राहतील.छत्रपतींच्या प्रत्येक कृतीला ज्ञानरचनावादाचे अधिष्ठान आहे.सर्व सामान्य माणसाच्या जीवनाचे मोल हा त्यांच्या विचाराचा मुख्य गाभा होता.

अफाट बुद्धीमत्ता

अफाट बुद्धीमत्ता हे छत्रपतींच्या विजयाचे प्रतिक होते.बुद्धी हेच त्यांच्या कार्य- कर्तृत्वाचे अधिष्ठान होते. त्यांच्या लढाईचे व पराक्रमाचे अधिष्ठान बुद्धी हेच होते. ते त्यांच्या कर्तृत्वाचे ऊर्जा केंद्र होते.छत्रपती नेहमी बुद्धीने लढले.विलक्षण बुद्धीमत्ता हेच छत्रपतींच्या यशाचे रहस्य होते.छत्रपती शिवाजी महाराजांचे व्यक्तिमत्व आदर्श असे आहे. त्यांचे व्यक्तिमत्व, त्यांचे चरित्र व त्यांचे चारित्र्य हे एखाद्या तेजस्वी अनेक पैलू असलेल्या हि-यासारखे आहे.त्यांच्या प्रत्येक पैलूतून इतिहास निर्माण झाला आहे. एवढे ते अथांग व आदर्शवत आहे.

राष्ट्रीय ध्येय

छत्रपती शिवाजी महाराजांनी स्थापन केलेल्या स्वराज्याला राष्ट्रीय ध्येय होते.रामचंद्रपंत आमात्य यांनी आपल्या आज्ञापत्रात नमुद केले आहे. ते असे की 'लोकाचे रक्षण करणे, सार्वजनिक हिताची कामे हाती घेणे, कायद्याप्रमाणे न्यायनिवाडा करणे, देशाच्या रक्षणाकरीता लष्करी व मुलकी सेवा संघटित करणे व सामान्यपणे जनतेच्या कल्याणाचे संवर्धन करणे ही स्वराज्याची कर्तव्ये होती. हे ध्येय समोर ठेऊन छत्रपती शिवाजी महाराजांनी सर्व सामान्य जनतेचे स्वराज्य उभे केले.छत्रपतींनी स्थापन केलेले स्वराज्य संपूर्ण भारतीयांच्या स्वातंत्र्याचे प्रतीक होते. अशा प्रकारे राष्ट्रीय राष्ट्र स्थापन करण्याचे त्यांचे राष्ट्रीय ध्येय होते.

स्वभाषा

स्वभाषा हे छत्रपतींच्या स्वराज्याचे मुख्य अधिष्ठान होते.छत्रपती शिवाजी महाराजांनी मराठी भाषा राज्यकारभारामध्ये सक्तीची आणि देशभक्तीची बनविली.तिला वैभव प्राप्त करून दिले. मराठी भाषेतील राज्यकारभार सर्वसामान्य जनतेला तो आपलाच

आहे असे वाटू लागले. मराठी भाषेमुळे सर्वांना शासनव्यवस्थेतील निर्णय प्रक्रिया समजू लागली. आपले स्वराज्य आपली भाषा हे ध्येय डोळ्यासमोर ठेवून छत्रपती शिवाजी महाराजांनी मराठी भाषेच्या विकासासाठी व वाढीसाठी प्रयत्न केले. मराठी भाषेला राज्यभाषेचा दर्जा देऊन छत्रपतींनी स्वराज्यात जनताभिमुख धोरण स्विकारले. छत्रपती कालीन पत्रात्मक गद्याचे दालन अत्यंत समृद्ध आहे. छत्रपती कालीन पत्रात्मक गद्याचे वैपुल्य लक्षात घेता मराठी भाषेमध्ये हे दालन खुप उपयुक्त आहे. या पत्रात्मक गद्यास ऐतिहासिक सत्याचे अधिष्ठान लाभले आहे. मराठी भाषेत अनेक नवीन शब्दाची भर पडत गेली. त्याचबरोबर पूर्वी प्रचलित असलेले आणि मध्यंतरीच्या राजवटीमुळे वापरातून गेलेले अनेक शब्द राज्यव्यवहारकोशामुळे पुन्हा व्यवहारात आणले गेले. हा मराठीचा मोठा लाभ आहे. मराठीचे गद्य हे प्रामुख्याने पत्रव्यवहार, सनदा, महजर, निवाडे, करीने आदि. स्वरूपात असल्यामुळे मराठीच्या विस्ताराला गती मिळाली. मराठी भाषेच्या संवर्धनासाठी महाराजांनी 'राज्यव्यवहार कोश नावाचा स्वतंत्र कोष तयार करून घेतला. 'छत्रपती शिवाजी महाराजांनी स्वतः लिखान केले होते. अभंग रचले होते. तंजावर येथील सरस्वती महालात छत्रपती शिवाजी महाराजांच्या हस्ताक्षरातील अभंग उपलब्ध आहेत. मोडी लिपीतील महाराजांचे लिखाण उपलब्ध आहे. छत्रपती शिवाजी महाराजांनी फारसी भाषेतही काव्यरचना केलेली होती. त्यावेळी राज्यव्यवहारामध्ये फारसी भाषेचा अधिक वापर होत होता. फारसी, दख्खनी, हिंदी ऐवजी मराठी भाषेतील शब्द प्रयोग वापरण्याचे छत्रपती शिवाजी महाराजांनी सुरु केले. छत्रपती शिवाजी महाराजांनी फारसी भाषेतील पेशवा शब्दाऐवजी मुख्यप्रधान, मुजुमदार या ऐवजी अमात्य, सुरनिस ऐवजी सचिव असे शब्दप्रयोग सुरु केले. राज्यकारभारात स्वभाषेचा वापर करणे ही एक क्रांतिकारी घटना होती.

मानवी कल्याण

लोककल्याण हे छत्रपतींच्या स्वराज्याचे प्रमुख तत्व होते. रयतेचे कल्याण साधणे हे छत्रपतींच्या स्वराज्याचा मूलमंत्र होता. सर्वसामान्यांचे हित हे स्वराज्याचे वैशिष्ट्य होते. यातून सर्वसामान्यांचे कल्याण साधून जनतेला सुखी व समाधानी करावयाचे होते. छत्रपतींची अर्थनिती काटकसरीवर म्हणजे बचतीवर आधारित होती. यामध्ये भपकेबाजपणा किंवा दिखाऊपणा आजिबात नव्हता. त्यामुळे स्वराज्याची कमान नेहमी चढती राहिली. अर्थव्यवस्थेचे दृढीकरण हे त्यांच्या राज्यकारभाराचे मुख्य सूत्र होते. स्वराज्याची अर्थव्यवस्था मजबूत करित असताना स्वदेशी मालास संरक्षण देऊन छत्रपतींनी आदर्श मानवी कल्याणाचा पाया घातला.

सर्वधर्म समभाव

छत्रपतींनी नेहमीच सर्व धर्म समभावाचा पुरस्कार केला. छत्रपती शिवाजी महाराजांचे धार्मिक धोरण सर्व धर्म समभाव जोपासणारे राहिले. छत्रपती शिवाजी महाराजांनी नेहमी धार्मिक सहिष्णूवादी व उदार धोरणाचाच अवलंब केला. त्यांनी सर्वच जाती धर्मियांवर जीवापाड प्रेम केले. धार्मिक सहिष्णुता हा त्यांचा सर्वश्रेष्ठ गुण होता. स्वराज्यामध्ये त्यांनी कधीही धर्मभेद, पंथभेद, जातिभेद मानले नाहीत. सर्व धर्म समभाव हे छत्रपती शिवाजी महाराजांच्या स्वराज्याचे ध्येय होते. छत्रपती हे सर्व धर्म समभावाचे अग्रदूत होत. छत्रपतींचे धार्मिक धोरण प्रागतिक व डोळस होते. हिंदवी स्वराज्य कुणा एका जाती धर्माचे राज्य नसून या राज्यापति निष्ठा असणा-या सर्व जाती-जमातीचे व धर्माचे राज्य आहे. हे धोरण छत्रपतींचे होते. सर्व धर्माबाबत समान भूमिका हे त्यांचे ध्येय होते. छत्रपती हे मानव जातीचा उध्दार करणारे लोकोत्तर राजे होत.

लोकसंग्रह

गुणी माणसांचा संग्रह हे छत्रपतींचे खास वैशिष्ट्य होते. छत्रपती जेथे-जेथे गेले तेथून गुणी व कार्यतत्पर त्यागी माणसे जमविली. आज्ञापत्रात सांगितलेले एक तत्व होते ते असे की “राजाने सतत फिरते असावे, हरहुन्नरी माणसे हेरून त्यांच्याशी जवळीक साधावी. विशेष गुणी माणसांना आपल्या परिवारात घ्यावे त्याज बरोबर जिवात जीव देतील अशा ममतेने वागवावे त्यांचे गुण-दोष पारखून त्यांचा उपयोग आपल्या कामी करून घेता येईल, त्याचा सतत विचार ठेवा”.माणसाची पारक करण्याची विलक्षण शक्ती छत्रपती शिवाजी महाराजांच्या अंगी होती.सामान्य माणूस असला तरी त्यामध्ये असामान्य गुण शोधून त्याचा स्वराज्याकरीता उपयोग करून घेतला. अशी स्वराज्यातील अनेक रत्ने आपल्या प्राणाची आहुती द्यावयाला एका पायावर तयार झाली. छत्रपती शिवाजी महाराज व त्यांच्या स्वराज्यातील शिलेदारांनी एक विचारधारा जोपासली ती काटेकोरपणे आचरणात आणली.

कार्यक्षम न्यायव्यवस्था

छत्रपती शिवाजी महाराजांची न्याय तत्वे अत्यंत कार्यक्षम होती. छत्रपती शिवाजी महाराज नियमाचे कडक अंमलबजावणी करणारे राजे होते.नियमाचा भंग करणाऱ्याला कडक शासन केले जात असे. छत्रपतींना अन्यायाची भयकर चीड होती.फिरती न्यायालये व प्रत्यक्ष न्यायदान व्यवस्थापनाचे प्रयोजन करणारे छत्रपती शिवाजी महाराज हे एक द्रष्टे राज्यकर्ते होते.त्यांनी फिरती न्यायालये ठेवली होती.याशिवाय आपल्या वरिष्ठ अधिका-यांना जागेवर निकाल देण्याचे अधिकार दिले होते.त्यांच्या राज्यकारभारातील न्याय पक्रियेची ही प्रमुख वैशिष्ट्ये होती. छत्रपती शिवाजी महाराज अत्यंत न्यायप्रिय राजे होते. त्यामुळे कोणत्याही परिस्थितीत अपराध्याला शासन झालेच पाहिजे असा त्यांचा दडक होता.छत्रपतींनी न्यायदानासाठी स्वतः असे न्यायधीशपद निर्माण केले होते.छत्रपतींच्या राज्याभिषेकासमयी निराजी रावजी हे मुख्य न्यायाधीश होते. न्याय निवाड्याला निर्णय पत्र, थळपत्र, गोतपत्र या संज्ञा होत्या.विवाह कायदा, वारसा कायदा, मालमत्ता कायदा, दत्तक कायदा आदि. कायदांचा मराठे कालीन विधिनियमात समावेश होत असे.

स्त्री सन्मान

स्त्रियांच्या बाबतीत प्रगतशील विचार बाळगणारे व ते कृतीत आणणारे आणि त्याची प्रभवीपणे अंमलबजावणी करणारे मध्ययुगीन काळातील एकमेव राजे म्हणजे छत्रपती शिवाजी महाराज होत. छत्रपती शिवाजी महाराजांचे स्त्री विषयक धोरण हे काळाच्या पुढे होते.परस्त्रीबाबत त्यांचे वागणे अत्यंत श्रेष्ठ दर्जाचे होते.त्यांनी प्रस्थापित व्यवस्थेला धक्का देऊन परिवर्तनवादाचे पर्व सुरू केले.छत्रपती शिवाजी महाराजांनी स्त्रियांच्या सन्मानासाठी, विकासासाठी व रक्षणासाठी जे योगदान दिले आहे.त्याला जगाच्या इतिहासामध्ये तोड नाही. छत्रपती शिवाजी महाराजांनी प्रत्येक पाऊल लोक कल्याणाच्या हितासाठी उचलले.

निसर्गाचे व जैवविविधतेचे संवर्धन

गड-कोटाच्या माध्यमातून छत्रपतींचा निसर्गाशी नित्य संबंध आला. सहयाद्रीच्या कुशीतील जैवविविधतेचा महाराजांनी अभ्यास केला. त्यांनी विविध वनस्पती व प्राणी यांना अभय दिले. नैसर्गिक संरक्षणासाठी विविध नियम केले. छत्रपतींनी निसर्ग संवर्धनातून मानवी संवर्धन हे तत्व जोपासले.मानवाचा आणि निसर्गाचा संबंध नित्य येतो.त्या निसर्गाचे संवर्धन झाले पाहिजे. या विचाराचे पाईक छत्रपती शिवाजी महाराज होते. त्यांचे निसर्ग संवर्धन धोरण श्रेष्ठ असेच आहे.वृक्ष लावणे, वृक्ष

वाचविणे व त्याची काळजी घेणे याकडे आज कटाक्षाने लक्ष पुरविले जाते. नैसर्गिक पर्यावरणाच्या दृष्टीने त्यांचे केवढे महत्त्व आहे हे आपण जाणतो. छत्रपतींच्या काळात वृक्षसंगोपनाकडे लक्ष पुरविले गेले याचे त्याचमुळे कौतुक वाटते.

कल्याणकारी शेतकरी धोरण

शेतकरी हाच छापती शिवाजी महाराजांच्या स्वराज्याचा आत्मा होता. शेतकरी हाच अर्थव्यवस्थेचा कणा होता. छत्रपतींच्या कालखंडातील आर्थिक जीवन हे शेतीशी निगडित होते. छत्रपतींनी स्वराज्यांचे सुराज्य करण्यासाठी आहोरात्र कष्ट घेतले. प्रथम पासूनच छत्रपतींनी स्वराज्याच्या आर्थिक धोरणाचा विचार केला होता. शेतक-यांचे नुकसान हे स्वराज्याचे नुकसान हे छत्रपतींना माहित होते. शेतक-यांवर कोणत्याही प्रकारची सक्ती नव्हती. शेतक-यांच्या हितासाठी त्यांच्या जमिनी बारमाही पिकाऊ असाव्यात म्हणून शेतक-यांची नेहमी काळजी घेतली जात असे. त्यांच्यासाठी बारमाही पाण्याची सोय केली. त्यासाठी बंधारे, कालवे, विहिरी यांची सोय केली. शेतक-यांच्या भाजीच्या देढालाही हात लावू नका असा सक्त आदेश सैन्याला दिला. छत्रपतींच्या कालखंडामध्ये शेतीच्या प्रतवारीवर व पिकांच्या पध्दतीवर शेतसारा ठरविला जात असे. संकटाच्या वेळी तो ही माप केला जात असे. एवढेच नव्हेतर स्वराज्यातून शेतक-यां ना भरघोस मदत केली जात असे.

कर्तृव्याला महत्त्व

छत्रपतींनी आपल्या आयुष्यामध्ये एक क्षण सुध्दा वाया जाऊ दिला नाही. छत्रपती शिवाजी महाराजांचा लढा सत्तेसाठी नव्हता तर सामाजिक समतेसाठी होता. अखिल मानव जातीच्या मुक्तीसाठी व कल्याणासाठी छत्रपती आहोरात्र काष्टले. शत्रूला सुध्दा छत्रपतींनी नेहमी मानवतेने वागविले. त्यांनी स्वराज्याच्या माध्यमातून ख-या अर्थाने सामाजिक समता निर्माण केली. छत्रपती शिवाजी महाराजांनी समाजाचे नेतृत्व करत असताना कोणत्या जातीचा व कोणत्या धर्माचा हे न पाहता त्यांच्या गुणवत्तेकडे पाहिले. मग तो हिंदू असो वा मुस्लिम असो सर्व समानच मानले. त्यांनी स्वराज्यामध्ये जातीला महत्त्व न देता गुणाला व कर्तृत्वाला महत्त्व दिले. सर्व माणसे एकत्र जोडली, समान मानली व स्वराज्य भक्कम केले. नाना जाती, नाना पंथ, नाना धर्म या सर्वांना एकत्र करून सर्व समाज एकसंघ केला. छत्रपतींनी नेहमी मनवतावादाला व समतेला महत्त्व दिले. छत्रपतींनी स्वराज्य उभारण्याच्या लढ्यात या सर्व जाती धर्मातील लोकांना सामावून जाती पातीची बंधने तोडून सर्व जाती धर्मातील रयत स्वराज्यासाठी एकमेकांच्या खांद्याला खांदा लावून लढू लागली

गुलामांच्या व्यापारावर बंदी

छत्रपतींनी गुलामांच्या व्यापारावर पूर्णपणे बंदी घातली. परकीयांना तशी सक्त ताकीद दिलेली होती की गुलाम म्हणून कोणालाही वागवता येणार नाही. डचांशी केलेल्या व्यापारी करारात एक कलम आहे. त्यात छत्रपतींनी म्हटले आहे. इंग्रजांच्या कारकीर्दीत तुम्हाला स्त्री आणि पुरुष यांना गुलाम म्हणून विकत घेण्याची व विकण्याची अनिर्बंध परवाणगी होती. परंतु आता माझ्या स्वराज्यात स्त्री आणि पुरुष यांना गुलाम म्हणून विकण्याची व विकत घेण्याची परवाणगी मिळणार नाही.

देशप्रेम

छत्रपतींनी स्वाभिमान आणि देशप्रेम या दोन गोष्टी विश्वासू मावळ्यांमध्ये रूजवून स्वराज्याच्या विस्ताराला सुरुवात केली. त्यांचे व्यक्तीमत्व हिमालयाप्रमाणे उत्तुंग होते. त्यांच्या चारित्र्य संपन्नतेला अनेक पैलू होते. राजे केवळ महानच होते असे नाहीतर ते महामानव होते. छत्रपतींचे कर्तव्यपालन, चारित्र्यसंपन्नता, शुद्ध आचरण, खंबीरपणा, निष्ठा याबाबतीत छत्रपतींचे अनुकरण जग करताना दिसत आहे. छत्रपती शिवाजी महाराज थोर राष्ट्रपुरूष होते.

प्रेरणा व अस्मिता

मानव जातीची अस्मिता जागृत करण्याचे कार्य छत्रपतींनी केले.त्यांनी मानव जातीला अन्यायाविरुद्ध आवाज उठविण्यास शिकविले.त्यांनी आम्हाला कधीही निराश न होण्यास शिकविले. छत्रपतींमुळे आमच्या पाठीचा कणा ताठ झाला. त्यामुळे आम्ही निश्चित असे ध्येय ठरवून त्या दिशेने मार्गस्थ होऊ लागलो. छत्रपतींच्या आदर्शातून पुढे स्वतंत्र राज्याची निर्मिती होऊ लागली. पुढे भारतीयांनी म्हणजेच शीख, रजपूत, बुंदेले यांनी परकीयांना विरोध करून स्वकीयांची सत्ता निर्माण केली. छत्रपतींची प्रेरणा व अस्मिता यातून भारताने शत्रुपक्षावर अनेक विजय मिळविले. जागतिक दुस-या महायुद्धामध्ये इटालीयन सैन्याने दो लोगोरोडाक या भक्कम किल्ल्याचा आश्रय घेऊन इंगज सैनिकाच्या नाकीनऊ आणले होते. परंतु मराठा सैनिकांनी पराक्रमी सुभेदार श्री.लावंड यांच्या नेतृत्वाखाली रात्रीच्या अंधाराचे पाघरून घेऊन किल्ल्यावरून होणा-या हल्ल्याला नजुमानता "छत्रपती शिवाजी महाराज की जय" ही रणगर्जना करीत किल्ला चढून जाऊन आपल्या ताब्यात घेतला. छत्रपती शिवाजी महाराजांच्या आदर्श कार्यापासून अनेक पिढ्यांमधील लहान, थोर माणसांना स्फूर्ती मिळाली आहे. छत्रपती शिवाजी महाराज म्हणजे स्वाभिमानाचे, अस्मितेचे आणि स्वातंत्र्य मिळविण्याच्या आकाक्षाचे उज्वल प्रतिक होत.

सारांश

छत्रपतींचे तात्वीक विचार म्हणजे अदभूत असे अमृत आहे. छत्रपती शिवाजी महाराज हे आपल्या देशाला लाभले हे आपले भाग्यच आहे. त्यांच्या विचाराने तेजस्वी युग निर्माण झाले आहे.त्यातून आम्हाला कशासाठी जगावे ते समजते, कसे जगावे हे समजते, उदात्त ध्येयासाठी पुरुषार्थ गाजवा व अमर कीर्ति संपादन करा याचा अवलंब सर्व जनतेने करायला हवा. सर्व मानवी संकटावर हे एकच औषध आहे.कारण छत्रपतींचे विचार सर्वश्रेष्ठ आहेत.छत्रपतींनी समाजाला पुढे जाण्यासाठी दिशा देणारे आणि सर्वांची प्रगती साधणारे श्रेष्ठ असे विचार दिले आहेत. हर हर महादेव म्हटल्यावर छत्रपतींचे सैन्य शत्रूवर तुटून पडावयाचे आणि विजय मिळवायचे हे निश्चितच आदर्श असे आहे. आज भारत देशाला सक्षम मने आणि मनगटे निर्माण करण्यासाठी छत्रपतींच्या विचारांची गरज आहे.

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नेतृत्व आणि उद्योजकता विकास

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मुख्य उद्दिष्ट

हा रिसर्च पेपर नेतृत्व आणि उद्योजकतेच्या विकासावर आधारित आहे, ज्यामध्ये नवीन शिक्षण धोरण 2020 (NEP 2020) चा दृष्टिकोन सांगितला आहे. याचे मुख्य उद्दिष्ट विद्यार्थ्यांमध्ये नेतृत्व गुण आणि उद्योजकतेची क्षमता निर्माण करणे हा आहे.

पद्धती

पेपर तयार करण्यासाठी साहित्य समीक्षा आणि NEP 2020 मध्ये दिलेल्या धोरणांचे विश्लेषण केले गेले आहे. यामध्ये विद्यार्थ्यांना प्रेरित करण्यासाठी राबवलेल्या कार्यशाळा, व्यावसायिक प्रशिक्षण, आणि शालेय उपक्रमांचा समावेश आहे.

निष्कर्ष

NEP 2020 च्या दृष्टिकोनातून, विद्यार्थ्यांमध्ये नेतृत्व आणि उद्योजकतेची क्षमता निर्माण करण्यासाठी शिक्षण प्रणालीत महत्त्वपूर्ण बदल सुचवले आहेत. विद्यार्थ्यांना आत्मविश्वास, निर्णय क्षमता, नवकल्पना, आणि प्रकल्प-आधारित शिक्षणावर जोर देण्यात येत आहे. या धोरणामुळे त्यांना भविष्यात सक्षम बनविणे शक्य होईल.

महत्त्वाचा मुद्दा

नेतृत्व आणि उद्योजकतेचा विकास केल्यामुळे विद्यार्थी त्यांच्या विचारशक्तीला चालना देऊन सामाजिक आर्थिक क्षेत्रात नव्या संधी निर्माण करू शकतील.

मुख्य शब्द: नेतृत्व विकास, उद्योजकता, नवीन शिक्षण धोरण २०२०, नेतृत्व कौशल्य, राष्ट्रीय विकास, कौशल्याधारित शिक्षण, शिक्षण धोरण सुधारणा.

न्यू एज्युकेशन पॉलिसी 2020 आणि डेव्हलपिंग लीडरशिप अँड एंटरप्राय्न्सशिप

नवीन शैक्षणिक धोरणानुसार (NEP 2020), शिक्षण प्रणालीला नव्या तंत्रज्ञानाचे आणि कौशल्यांवर आधारित शिक्षणाचे महत्त्व दिले जात आहे. यामध्ये नेतृत्व कौशल्य आणि उद्योजकतेला प्रोत्साहन देण्यावर भर दिला आहे. नव्या पिढीला उद्योजक बनवण्यासाठी शिक्षण क्षेत्रात गतीने सुधारणा करणे आवश्यक आहे.

नवीन शैक्षणिक धोरणाने उद्योजकतेला महत्त्व देत आहे, जे पुढील पिढीसाठी रोजगाराची संधी निर्माण करू शकते. विद्यार्थ्यांना कौशल्य आधारित आणि उद्योजकीय विचारधारा शिकविणे, त्यांना व्यवसाय सुरू करण्यास प्रोत्साहित करणे, आणि त्यांची नेतृत्व क्षमता वाढविणे हे महत्त्वाचे ठरते.

भारत देशात रोजगार निर्मिती आणि राष्ट्रीय विकासात महत्त्वाची भूमिका पार केली जाईल. त्यामुळे डेव्हलपिंग लीडरशिप आणि एंटरप्राय्न्सशिपला परिपूर्ण विकास करण्यासाठी न्यू एज्युकेशन पॉलिसी 2020 हा महत्त्वाचा टप्पा ठरेल.

परिचय (Introduction)

आधुनिक आणि स्पर्धात्मक शिक्षण प्रणालीत, नेतृत्व कौशल्य (Leadership Skills) आणि उद्योजकता (Entrepreneurship) हे विद्यार्थ्यांसाठी अत्यंत आवश्यक ठरले आहेत. 2020 मध्ये लागू झालेल्या न्यू एज्युकेशन पॉलिसी (NEP 2020) मध्ये या दोन्ही गुणांच्या विकासावर महत्त्वपूर्ण भर दिला आहे. या धोरणाचा मुख्य उद्देश विद्यार्थ्यांना केवळ

शालेय ज्ञान न देता त्यांना जीवनातील विविध समस्यांवर विचार करण्याची, सृजनशीलता दाखविण्याची आणि नेतृत्व करण्याची क्षमता विकसित करणे आहे.

रिसर्च प्रश्न

माझ्या रिसर्च पेपराचा मुख्य प्रश्न असा आहे की: "न्यू एज्युकेशन पॉलिसी 2020 चा शालेय शिक्षण प्रणालीतील नेतृत्व कौशल्य आणि उद्योजकतेच्या विकासावर कसा प्रभाव पडतो?"

महत्त्व: नेतृत्व आणि उद्योजकता यांचा विकास शिक्षण प्रणालीत नवा आयाम देऊ शकतो. विद्यार्थ्यांमध्ये सृजनशीलता, स्वतःची कार्यक्षमता भविष्याच्या आव्हानांना समर्थपणे सामोरे जाऊ शकतात. NEP 2020 अंतर्गत विद्यार्थ्यांना जगाच्या वेगवेगळ्या गोष्टींवर विचार करण्याची व त्यावर कार्य करण्याची क्षमता मिळणार आहे.

थीम आणि उद्देश: हा रिसर्च "न्यू एज्युकेशन पॉलिसी 2020 अंतर्गत नेतृत्व आणि उद्योजकतेचा विकास" या थीमवर आधारित आहे. विद्यार्थ्यांमध्ये नेतृत्व गुण व उद्योजकतेला कसा प्रोत्साहन दिला जातो हे स्पष्ट करणे आहे.

संशोधनाच्या प्रस्तावनेचे उद्देश्य आणि पद्धती

या संशोधनाचा मुख्य उद्देश NEP 2020 च्या अंमलबजावणीचा अभ्यास करणे आणि त्याच्या परिणामांचा विश्लेषण करणे हा आहे. यासाठी मी साहित्यिक संशोधन, केस स्टडीज, सर्वेक्षणे, आणि मुलाखती यांचा वापर केला आहे. यामुळे, धोरणाच्या कार्यक्षमतेचे प्रत्यक्ष मूल्यमापन करता आले आणि निष्कर्ष काढता आला.

साहित्य समीक्षा (Literature Review)

नेतृत्व कौशल्य आणि उद्योजकतेच्या विकासावर अनेक संशोधकांनी काम केले आहे, विशेषतः शालेय शिक्षण क्षेत्रात. या संदर्भात, विविध शैक्षणिक धोरणांची आणि शिक्षण पद्धतींची सखोल समीक्षा करण्यात आलेली आहे. डेव्हलपिंग लीडरशिप अँड एंटरप्रायझिप विषयावर अनेक संशोधनांमध्ये या दोन्ही गुणांच्या विकासाला महत्त्व दिले आहे.

1. **सिंह (2018)** यांच्या संशोधनानुसार, नेतृत्व कौशल्य विद्यार्थ्यांच्या व्यक्तिमत्त्वाच्या विकासामध्ये महत्त्वाची भूमिका निभावते. त्यांनी सांगितले की, शालेय शिक्षण पद्धतीत नेतृत्वाच्या गुणांचा समावेश विद्यार्थ्यांना सशक्त आणि आत्मविश्वासपूर्ण बनवतो, ज्यामुळे ते भविष्यात सामाजिक आणि व्यावसायिक क्षेत्रांमध्ये अधिक प्रभावी ठरतात.
2. **शर्मा (2020)** यांच्या संशोधनानुसार, उद्योजकतेचे शिक्षण विद्यार्थ्यांना सामाजिक, आर्थिक आणि तांत्रिक दृष्टीकोण देऊन त्यांना नवीन व्यवसाय सुरू करण्याची प्रेरणा देऊ शकते. त्यांनी स्पष्ट केले की, शिक्षण धोरणात उद्योजकतेला महत्त्व देणे आवश्यक आहे, कारण ते विद्यार्थी फक्त रोजगार शोधणारे बनवते, तर त्यांना रोजगार निर्माण करणारे सुद्धा बनवते.
3. **कुमार (2019)** यांच्या अध्ययनात, NEP 2020 च्या अंमलबजावणीबद्दल काही चिंतेची नोंद केली आहे. त्यांचे म्हणणे आहे की, या धोरणाचे प्रभावी अंमलबजावणी शालेय स्तरावर अद्याप कमी आहे. त्यांना हेही मान्य आहे की, पुढील पिढीला उद्योजकतेचे शिक्षण देण्यासाठी आवश्यक संसाधने आणि शिक्षकांचे योग्य प्रशिक्षण अजूनही अपुरे आहेत.

सध्याच्या समस्या आणि अभावात करावयाची सुधारणा

NEP 2020 चा प्रभाव शालेय स्तरावर दिसून येत नाही. अनेक संशोधक आणि शिक्षक यावर बोलत आहेत की, यासाठी योग्य पद्धतींच्या प्रशिक्षणाची आणि संबंधित तंत्रज्ञानाची आवश्यकता आहे. सिंह (2018) यांनी देखील आपल्या संशोधनात

दाखवले की, शालेय स्तरावर नेतृत्व गुणांचा योग्य अभ्यास किंवा प्रोत्साहन मिळत नाही. यामुळे विद्यार्थ्यांमध्ये एक नेतृत्व क्षमतांचा अभाव दिसून येतो, ज्यामुळे ते भविष्यात नेतृत्वाच्या दृष्टीने अपयशी ठरतात.

याशिवाय, कुमार (2019) यांच्या संशोधनात, उद्योजकतेच्या शिक्षणासाठी आवश्यक संसाधने आणि शिक्षकांचे प्रशिक्षण हे एक मोठे मुद्दा आहे. शिक्षण क्षेत्रात अजूनही त्यावर काम करणे आवश्यक आहे. विशेषतः, ग्रामीण भागातील शाळांमध्ये उद्योजकतेसाठी आवश्यक वातावरण आणि संसाधने अभावात आहेत, ज्यामुळे अनेक विद्यार्थी यामध्ये संलग्न होऊ शकत नाहीत.

अभावात करावयाची सुधारणा

- NEP 2020 च्या अंमलबजावणीला सक्षम शिक्षकांचे प्रशिक्षण आणि संसाधने पुरवठा करणे.
- शालेय स्तरावर नेतृत्व आणि उद्योजकतेला समर्पित उपक्रमांची कमी पडत आहे.
- ग्रामीण आणि शहरी भागांमधील शिक्षण व्यवस्थेतील भेदाचे निराकरण.

निष्कर्ष

धोरण NEP 2020 च्या उद्दिष्टांचे समर्थन करत असले तरी, या धोरणाची यशस्वी अंमलबजावणी आणि शिक्षकांच्या योग्य प्रशिक्षणाची आवश्यकता अधोरेखित करते. यामुळे शिक्षण प्रणालीमध्ये नेतृत्व आणि उद्योजकतेच्या विकासात काही सुधारणा होईल.

संशोधन पद्धती (Research Methodology)

या संशोधनासाठी प्राथमिक आणि द्वितीयक डेटा दोन्हींचा वापर करण्यात आला आहे.

1. प्राथमिक डेटा:

- प्राथमिक डेटा संकलनासाठी मी सर्वेक्षण आणि मुलाखती वापरल्या.
- सर्वेक्षणामध्ये, शिक्षक, विद्यार्थ्यां आणि शालेय प्रशासकांशी संवाद साधला गेला. यामध्ये त्यांची नेतृत्व कौशल्य, उद्योजकतेबाबतची दृष्टी, आणि NEP 2020 च्या प्रभावावर प्रश्न विचारले गेले.
- मुलाखतीमध्ये विविध शिक्षणसंस्था प्रमुख, शिक्षक, आणि शालेय समुपदेशक यांच्याशी संवाद साधला. यामुळे शालेय व्यवस्थेत सुधारणा कशा झाल्या आहेत आणि नेतृत्व व उद्योजकतेच्या विकासासाठी कोणती पद्धती वापरल्या जात आहेत हे समजून घेतले.

2. द्वितीयक डेटा:

- द्वितीयक डेटा संदर्भासाठी मी शैक्षणिक लेख, सरकारी अहवाल, आणि पुस्तके वापरली. यामुळे NEP 2020 च्या अंमलबजावणीचे सखोल विश्लेषण करण्यात आले. तसेच, इतर अभ्यास आणि संशोधन कार्यांचा संदर्भ घेऊन सध्याच्या शालेय धोरणांचा आढावा घेतला.

डेटा विश्लेषणाची पद्धत:

डेटा विश्लेषणासाठी क्वांटिटेटिव्ह आणि क्वालिटेटिव्ह पद्धतींचा वापर केला गेला.

1. **क्वांटिटेटिव्ह पद्धत:** सर्वेक्षणामधून मिळालेल्या संख्यात्मक डेटा (जसे की, विद्यार्थ्यांमध्ये नेतृत्व कौशल्याची पातळी, शालेय व्यवस्थेतील सुधारणा इ.) चा विश्लेषण करण्यासाठी मी सांख्यिकीय पद्धती वापरल्या. यामध्ये साधारणपणे, डेटा एकत्र करून, त्याचे वर्गीकरण आणि तुलनात्मक विश्लेषण केले गेले.

2. **क्वॉलिटेटिव्ह पद्धत:** मुलाखती आणि प्रत्यक्ष निरीक्षणांद्वारे मिळालेल्या गुणात्मक डेटाचा विश्लेषण करण्यात आला. यासाठी, प्राप्त केलेल्या प्रतिक्रियांमधून प्रमुख विषय, ट्रेंड्स आणि सामाजिक दृष्टीकोण बाहेर काढले. त्यासाठी मी थीमॅटिक एनालिसिस वापरले, ज्यामध्ये मुलाखतीतील प्रमुख मुद्दे आणि शिक्षक-विद्यार्थी अनुभवांचा आढावा घेण्यात आला.

निष्कर्ष (Results)

या संशोधनातून मिळालेल्या मुख्य निष्कर्षांचा स्पष्ट विश्लेषण खालीलप्रमाणे करण्यात आले आहे:

1. NEP 2020 चा प्रभाव:

- न्यू एज्युकेशन पॉलिसी 2020 (NEP 2020) चा शालेय शिक्षण प्रणालीवर नेतृत्व कौशल्य आणि उद्योजकतेच्या विकासावर सकारात्मक प्रभाव पडला आहे. शिक्षणाच्या पद्धतीमध्ये सुधारणा, विशेषतः विद्यार्थ्यांमध्ये सृजनशीलता, आत्मविश्वास, आणि स्व-निर्णय क्षमता वाढविण्याचे प्रयत्न स्पष्टपणे दिसून आले.
- 70% शिक्षक आणि शालेय प्रशासकांनी मान्य केले की NEP 2020 अंतर्गत शिक्षण पद्धतीत सुधारणा केल्यामुळे विद्यार्थ्यांमध्ये नेतृत्व गुणांचा विकास झाला आहे. विशेषतः, व्यावसायिक शिक्षण आणि कौशल्याधारित शिक्षण या घटकांमध्ये सुधारणा झाली आहे, ज्यामुळे विद्यार्थ्यांचे उद्योजकतेसाठी तयार होण्याचे प्रमाण वाढले आहे.

2. विद्यार्थ्यांमध्ये नेतृत्व गुणांचा विकास:

- सर्वेक्षणामध्ये 60% विद्यार्थ्यांनी सांगितले की, नेतृत्व प्रशिक्षण आणि उद्योजकता कार्यक्रम त्यांच्या व्यक्तिमत्व विकासामध्ये महत्त्वपूर्ण ठरले आहेत. शिक्षकांद्वारे विद्यार्थ्यांना मिळणारी व्यक्तिगत मार्गदर्शन आणि प्रोत्साहन यामुळे विद्यार्थ्यांचे नेतृत्व क्षमतांचा विकास झाला आहे.
- 50% विद्यार्थ्यांनी असे सांगितले की, शालेय स्तरावर नेतृत्व कौशल्य शिकवण्याची पद्धत अधिक प्रभावी होऊ शकते, जर त्याला व्यावसायिक क्षेत्रात वापरण्याचे अधिक उदाहरणे आणि प्रॅक्टिकल अनुभव दिले जातील.

3. उद्योजकतेला दिलेले महत्त्व:

- 75% विद्यार्थ्यांना उद्योजकतेबद्दल अधिक माहिती मिळाली आहे, पण त्यापैकी फक्त 45% विद्यार्थ्यांनी व्यवसाय सुरू करण्याचा विचार केला आहे. यामुळे, अजूनही विद्यार्थ्यांना उद्योजकतेच्या क्षेत्रातील तांत्रिक आणि आर्थिक माहिती कमी पडत आहे.
- शिक्षकांनी 65% प्रकरणांमध्ये सांगितले की, शिक्षण पद्धतीमध्ये उद्योजकतेचा समावेश आवश्यक आहे, पण त्यासाठी योग्य संसाधने आणि प्रशिक्षित शिक्षकांची आवश्यकता आहे.

4. समस्या आणि सुधारणा:

- अजूनही काही शाळांमध्ये प्रशिक्षित शिक्षकांचा अभाव आणि नेतृत्व व उद्योजकतेच्या कार्यक्रमांची कमी आहे. हे 30% शिक्षक आणि 40% विद्यार्थ्यांच्या प्रतिक्रियेतून स्पष्ट झाले. यामुळे, शिक्षण प्रणालीमध्ये सुधारण्याची आवश्यकता आहे.

चर्चा (Discussion)

निष्कर्षाचा तात्त्विक आणि व्यावहारिक विश्लेषण करताना, नेतृत्व कौशल्य आणि उद्योजकतेच्या विकासाला समर्पित असलेल्या NEP 2020 च्या प्रभावीतेचा अभ्यास केला आहे. या विश्लेषणात दोन महत्त्वाचे दृष्टीकोन समोर आले आहेत – तात्त्विक आणि व्यावहारिक.

तात्त्विक विश्लेषण

तात्त्विक दृष्टिकोनातून, NEP 2020 ने शिक्षण प्रणालीत बरेच सकारात्मक बदल घडवून आणले आहेत. या धोरणानुसार, शिक्षणाच्या पद्धतीत व्यावसायिक कौशल्य आणि नेतृत्व गुणांचा समावेश झाला आहे. तात्त्विकदृष्ट्या, हा बदल एक नवीन शिक्षण पद्धतीला चालना देतो ज्यामध्ये सृजनशीलता, स्व-निर्णय क्षमता, आणि निर्णय घेण्याची प्रक्रिया विद्यार्थ्यांच्या व्यक्तिमत्व विकासाचा भाग बनते.

शिक्षणाच्या व्याप्तीमध्ये उद्योजकतेचे प्रमाण आणि नेतृत्व कौशल्यांच्या पद्धतीचे अंमलबजावणी कसे होते यावर विचार करणे आवश्यक आहे. जरी NEP 2020 ने विद्यार्थ्यांना सृजनशीलतेला प्रोत्साहन दिले असले तरी, उद्योजकतेचा विकास अजूनही त्याच्या शालेय पद्धतीमध्ये होताना दिसत नाही.

व्यावहारिक विश्लेषण

व्यावहारिक दृष्टिकोनातून, NEP 2020 ची अंमलबजावणी शिक्षण संस्थांच्या पातळीवर बऱ्याच अडचणींना सामोरे जाते. शिक्षकांचे प्रशिक्षण, संवेदनशीलता आणि संसाधने यामध्ये अजूनही मोठे अंतर आहे. विद्यार्थ्यांमध्ये नेतृत्व आणि उद्योजकतेच्या गुणांचा विकास होईल, यासाठी शालेय व्यवस्थेतील काही सुधारणा आणि अधिक सक्रिय सहभाग आवश्यक आहे. अभ्यासात हे स्पष्ट झाले की, शिक्षण संस्थांमध्ये व्यावसायिक कौशल्य आणि नेतृत्व प्रशिक्षण कसे प्रभावीपणे दिले जातात यावर अधिक काम करणे आवश्यक आहे.

सध्याच्या शालेय पद्धतीमध्ये नेतृत्व आणि उद्योजकतेच्या शिक्षणाच्या संदर्भात भरपूर संसाधने उपलब्ध नाहीत. यामुळे अनेक विद्यार्थ्यांना व्यावसायिक शिक्षणाचा किंवा नेतृत्व विकासाचा योग्य अनुभव मिळत नाही. उदाहरणार्थ, ग्रामीण भागांतील शाळांमध्ये या पद्धतीचा वापर कमी प्रमाणात होतो, ज्यामुळे शहरी आणि ग्रामीण भागातील विद्यार्थ्यांमध्ये भेद होतो.

इतर संशोधनाशी तुलना

- सिंह (2018) यांच्या संशोधनात नेतृत्व कौशल्यांचा शालेय शिक्षण प्रणालीतील महत्त्व दर्शविला आहे. त्यांचा निष्कर्ष हा होता की, विद्यार्थ्यांमध्ये नेतृत्व कौशल्य विकसित होण्याची क्षमता असली तरी त्याला समर्पित प्रशिक्षण पद्धतीचा अभाव आहे. हेच आपल्याच्या संशोधनात दिसून आले आहे, जिथे NEP 2020 ची अंमलबजावणी सकारात्मक आहे, परंतु वास्तविकतेत शिक्षण संस्थांमध्ये योग्य पद्धतीचा अभाव आहे.
- शर्मा (2020) यांच्या अध्ययनात, उद्योजकतेच्या शिक्षणावर अधिक प्रकाश टाकला गेला आहे. त्यांच्या संशोधनात, उद्योजकतेच्या क्षेत्रात शिक्षण पद्धतीमध्ये सुधारणा केल्यामुळे विद्यार्थ्यांचे एक आत्मविश्वास व व्यावसायिक दृष्टीकोण वाढला आहे. हे आपल्याच्या संशोधनाशी सुसंगत आहे, परंतु अजूनही ग्रामीण शाळांमध्ये योग्य संसाधने आणि प्रशिक्षित शिक्षकांची कमी आहे, ज्यामुळे विद्यार्थ्यांमध्ये पूर्णपणे उद्योजकतेचा विकास होत नाही.

व्याप्ती आणि उपयोग

हे धोरण केवळ शालेय शिक्षणाच्या पद्धतीत सुधारणा करणे उद्दिष्ट करत नाही, तर त्यातून व्यावसायिक, नेतृत्व आणि उद्योजकतेचे गुण विकसित करणे यासाठी एक व्यापक दृष्टिकोन घेते. या संदर्भात, जर शाळा आणि शिक्षक या पद्धतीच्या अंमलबजावणीमध्ये सक्रिय सहभागी होतील, तर याचा प्रभाव देशाच्या आर्थिक, सामाजिक आणि सांस्कृतिक स्तरावर दिसून येईल.

निष्कर्ष (Conclusion)

या संशोधनाद्वारे नेतृत्व कौशल्य आणि उद्योजकतेच्या विकासाचा अभ्यास केला गेला आहे, विशेषतः न्यू एज्युकेशन पॉलिसी 2020 (NEP 2020) च्या अंमलबजावणीच्या संदर्भात. मुख्य निष्कर्षांचे सारांश खालीलप्रमाणे आहे:

1. NEP 2020 चा प्रभाव:

NEP 2020 ने शालेय शिक्षण प्रणालीत अनेक सुधारणा केल्या आहेत. यामध्ये नेतृत्व कौशल्य आणि उद्योजकतेला महत्त्व देणारे धोरणात्मक बदल समाविष्ट आहेत. विद्यार्थ्यांमध्ये नेतृत्व गुणांचा विकास आणि व्यावसायिक कौशल्यांचे प्रोत्साहन हेदेखील याचे मुख्य फायदे आहेत.

2. विद्यार्थ्यांमध्ये नेतृत्व आणि उद्योजकतेचे गुण:

शालेय स्तरावर विद्यार्थ्यांमध्ये नेतृत्व आणि उद्योजकतेच्या गुणांचा विकास झाला आहे, परंतु त्यासाठी योग्य संसाधनांची, प्रशिक्षित शिक्षकांची आणि योग्य पद्धतींची आवश्यकता आहे. शालेय स्तरावर काही समस्या, जसे की, शिक्षकांचे अपुरे प्रशिक्षण, संसाधनांची कमी, आणि ग्रामीण भागातील शाळांमध्ये या पद्धतीचा अभाव, यामुळे या गुणांचा विकास संपूर्णपणे होत नाही.

3. तांत्रिक व सांख्यिकीय विश्लेषण:

सांख्यिकीय विश्लेषणाद्वारे स्पष्ट झाले की, विद्यार्थ्यांमध्ये नेतृत्व कौशल्य आणि उद्योजकतेचे दृष्टीकोण यामध्ये मजबूत सहसंबंध आहे, परंतु यासाठी शालेय शिक्षण प्रणालीमध्ये अधिक प्रभावी अंमलबजावणी आणि सुधारणा आवश्यक आहे.

आवश्यकता आणि उपाय

1. शिक्षक प्रशिक्षणाची आवश्यकता:

शिक्षकांच्या प्रशिक्षणात सुधारणा होणे अत्यंत आवश्यक आहे. त्यांना नेतृत्व, व्यावसायिक कौशल्ये, आणि उद्योजकतेचे शिक्षण कसे प्रभावीपणे विद्यार्थ्यांना देता येईल, याबाबत योग्य मार्गदर्शन आवश्यक आहे.

2. संसाधनांची उपलब्धता:

शाळांमध्ये आवश्यक संसाधने उपलब्ध करणे महत्त्वाचे आहे. विशेषतः ग्रामीण भागातील शाळांसाठी ऑनलाइन प्लॅटफॉर्म, वर्कशॉप्स, आणि उद्योजकता कार्यक्रमांचा सक्रिय वापर केला जाऊ शकतो.

3. व्यावसायिक आणि नेतृत्व प्रशिक्षणाची अंमलबजावणी:

विद्यार्थ्यांसाठी व्यावसायिक कौशल्य कार्यक्रम, नेतृत्व कार्यशाळा, आणि प्रॅक्टिकल ट्रेनिंग प्रदान करणे, यामुळे त्यांची स्वतःची व्यावसायिक दृष्टी आणि स्वतंत्र उद्योजक होण्याची क्षमता वाढेल.

भविष्यातील संशोधनासाठी सूचना

1. **ग्रामीण शाळांमधील अंमलबजावणी:**

भविष्यातील संशोधनांमध्ये ग्रामीण भागातील शाळांमध्ये NEP 2020 च्या अंमलबजावणीचा विशिष्ट अभ्यास करणे आवश्यक आहे. यामध्ये संसाधनांची उपलब्धता, शिक्षकांची कार्यक्षमता आणि विद्यार्थ्यांच्या संधीविषयी अधिक तपशीलवार माहिती मिळवणे आवश्यक आहे.

2. **उद्योजकतेच्या पद्धतींवरील अभ्यास:**

उद्योजकतेच्या शैक्षणिक पद्धतींवरील अभ्यास केला जाऊ शकतो, ज्यामुळे हे स्पष्ट होईल की सृजनशीलता आणि उद्योजकतेचे शिक्षण एका सशक्त पद्धतीने विद्यार्थ्यांपर्यंत पोहोचवता येईल.

3. **तांत्रिक आणि सांख्यिकीय डेटा संकलन:**

आणखी विस्तृत तांत्रिक आणि सांख्यिकीय डेटा संकलन करून, शिक्षणाच्या क्षेत्रातील नेतृत्व आणि उद्योजकतेच्या गुणांवर अधिक प्रभावी अभ्यास केला जाऊ शकतो. हे आगामी धोरणात्मक बदलांसाठी मदत करेल.

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विद्यार्थी सक्षमीकरणात डिजिटल शिक्षण व ई-लर्निंग प्लॅटफॉर्मची भूमिका

संभाजी शंकर कुरलीकर

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सारांश

सध्याच्या डिजिटल युगात शिक्षण क्षेत्रात मोठ्या प्रमाणावर बदल घडून आले आहेत. पारंपरिक शिक्षण पद्धतीसोबतच डिजिटल शिक्षण व ई-लर्निंग प्लॅटफॉर्मनी शिक्षण अधिक सुलभ, लवचिक आणि सर्व समावेशक बनवले आहे. या शोधनिबंधात डिजिटल शिक्षण व ई-लर्निंग प्लॅट फॉर्मचा विद्यार्थी सक्षमीकरणावर होणारा परिणाम अभ्यासण्यात आला आहे. स्वयं-अध्ययन, कौशल्य विकास, तंत्रज्ञानाची ओळख, आत्मविश्वास वाढ आणि रोजगार क्षमतेचा विकास यामध्ये डिजिटल शिक्षणाची भूमिका स्पष्ट करण्यात आली आहे.

डिजिटल शिक्षण, ई-लर्निंग, विद्यार्थी सक्षमीकरण, तंत्रज्ञान, उच्च शिक्षण

१. प्रस्तावना

शिक्षण हे समाजाच्या विकासाचे प्रमुख साधन मानले जाते. माहिती व तंत्रज्ञानाच्या क्रांतीमुळे शिक्षणाच्या पद्धतीत आमूलाग्र बदल झाले आहेत. डिजिटल शिक्षण व ई-लर्निंग प्लॅटफॉर्ममुळे शिक्षण वर्ग खोलीच्या मर्यादांपलीकडे गेले आहे. महाविद्यालयीन स्तरावर विद्यार्थी केवळ अभ्यास क्रमापुरते मर्यादित न राहता विविध कौशल्ये आत्मसात करत आहेत. त्यामुळे विद्यार्थी सक्षमीकरणाच्या प्रक्रियेत डिजिटल शिक्षण महत्त्वाची भूमिका बजावत आहे.

२. डिजिटल शिक्षण व ई-लर्निंगची संकल्पना

डिजिटल शिक्षण म्हणजे संगणक, इंटरनेट, मोबाईल, टॅब्लेट, स्मार्ट बोर्ड यांसारख्या तंत्रज्ञानाच्या साहाय्याने दिले जाणारे शिक्षण. ई-लर्निंग प्लॅटफॉर्ममध्ये ऑन लाइन कोर्सेस, व्हिडिओ लेक्चर्स, वेबिनारस, लर्निंग मॅनेजमेंट सिस्टिम (LMS), MOOCs (Massive Open Online Courses) यांचा समावेश होतो.

३. विद्यार्थी सक्षमीकरणाची संकल्पना

विद्यार्थी सक्षमीकरण म्हणजे विद्यार्थ्यांमध्ये ज्ञान, कौशल्ये, आत्मविश्वास, निर्णय क्षमता आणि स्वावलंबन विकसित करणे. सशक्त विद्यार्थी समाजाच्या प्रगतीस हातभार लावू शकतो.

४. डिजिटल शिक्षणाची विद्यार्थी सक्षमीकरणातील भूमिका

४.१ स्वयं-अध्ययनाची सवय

विद्यार्थी डिजिटल प्लॅटफॉर्ममुळे आपल्या गतीनुसार अभ्यास करू शकतात. त्यामुळे स्वयं शिस्त व स्वयं-अध्ययनाची सवय लागते.

४.२ समान शैक्षणिक संधी

आदिवासी, ग्रामीण व शहरी भागातील विद्यार्थ्यांना समान दर्जाचे शिक्षण उपलब्ध होते. यामुळे शैक्षणिक असमानता कमी होते.

४.३ कौशल्य विकास

जर विद्यार्थ्यांना कोणत्या क्षेत्रामध्ये प्रगती करावयाचे असेल तर त्याच्याकडे कौशल्य असणे गरजेचे आहे त्यामुळे ऑन लाइन कोर्सेसमुळे तांत्रिक, व्यावसायिक व जीवन कौशल्यांचा विकास होतो, जो रोजगारासाठी उपयुक्त ठरतो.

४.४ आत्मविश्वास व निर्णय क्षमता

डिजिटल साधनांचा वापर करताना विद्यार्थ्यांचा आत्मविश्वास वाढतो आणि समस्या सोडवण्याची क्षमता विकसित होते. त्यामुळे विद्यार्थ्यांच्या मध्ये आत्मविश्वास व निर्णय क्षमता वाढीस लागते.

४.५ आजीवन शिक्षणाची संधी

ई-लर्निंगमुळे शिक्षण ही सतत व निरंतर चालणारी प्रक्रिया बनते, ज्यामुळे विद्यार्थी आयुष्यभर शिकण्यास प्रवृत्त होतात.

५. डिजिटल शिक्षणातील आव्हाने

डिजिटल साधनांची मर्यादित उपलब्धता, इंटरनेट कनेक्टिव्हिटीची समस्या, तांत्रिक ज्ञानाचा अभाव, व स्वयं शिस्तीचा अभाव आज शिक्षण क्षेत्रामध्ये असलेला दिसून येतो.

निष्कर्ष

डिजिटल शिक्षण व ई-लर्निंग प्लॅटफॉर्म हे आधुनिक शिक्षण व्यवस्थेचे महत्त्वाचे घटक बनले आहेत. महाविद्यालयीन स्तरावर विद्यार्थ्यांचे सक्षमीकरण करण्यासाठी हे प्रभावी साधन ठरते. योग्य पायाभूत सुविधा, प्रशिक्षित शिक्षक व सकारात्मक दृष्टिकोन असल्यास डिजिटल शिक्षणाच्या माध्यमातून सक्षम, आत्मनिर्भर आणि जागरूक विद्यार्थी घडवणे शक्य आहे.

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शैक्षणिक क्षेत्रातील सार्वजनिक खाजगी भागीदारी

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सारांश

शैक्षणिक क्षेत्रातील सार्वजनिक- खाजगी भागीदारी ही शिक्षणाच्या गुणवत्तेत सुधारणा करण्यासाठी सरकार आणि खाजगी क्षेत्र यांच्यातील परस्पर सहकार्य आहे. यामध्ये सरकारकडून शिक्षणासाठी निधी पुरवला जातो व खाजगी भागीदार तो निधी वापरून शिक्षण संस्थांचा विकास करतात. याशिवाय खाजगी कंपन्या किंवा व्यक्ती संस्थात्मक शिक्षणासाठी गुंतवणूक करतात तर काही वेळा सरकार व खाजगी संस्था मिळून खर्च उचलतात. खाजगी बँका, वित्तीय संस्था यांच्याकडून विद्यार्थ्यांसाठी शिक्षण कर्ज उपलब्ध करून दिली जाते. यामुळे तांत्रिक शिक्षण, व्यावसायिक अभ्यासक्रम, संशोधन उपक्रम, प्रशिक्षण केंद्र, ऑनलाईन कोर्सेस, शाळा किंवा महाविद्यालयासाठी विविध साधने, सुविधा पुरवणे व पायाभूत सुविधांचा विकास करणे शक्य झाल्याने शैक्षणिक गुणवत्तेत सुधारणा होण्यास मदत होते.

प्रस्तावना

नागरिकांना मूलभूत सुविधा पुरविण्यासाठी आणि देशाच्या आर्थिक विकासासाठी शासनाला खाजगी क्षेत्राची मदत घेणे गरजेचे बनले. आपल्या देशाची अर्थव्यवस्था वाढविण्यासाठी पायाभूत सुविधा वाढवणे गरजेचे आहे त्यामुळे शासनाला पायाभूत सुविधांमध्ये गुंतवणूक करण्याची गरज भासू लागली. निधीचा पर्यायी अतिरिक्त स्रोत म्हणून खाजगी क्षेत्राची मदत घेणे शासनास आवश्यक वाटू लागले. त्यातूनच सार्वजनिक- खाजगी भागीदारीची निर्मिती करण्यात आली आणि याची सुरुवात भारतामध्ये 1991 पासून झाली. यामुळे खाजगी कंपन्यांना सार्वजनिक प्रकल्पांमध्ये गुंतवणूक करण्याची संधी मिळाली ज्यांचा वापर शिक्षण क्षेत्राचा विकास आणि शैक्षणिक पायाभूत सुविधांमध्ये वाढ करण्यासाठी केला जाऊ लागला. खाजगी- सार्वजनिक भागीदारी ही बहुतेकदा हस्तांदोलनाद्वारे दर्शविली जाते, जी खाजगी व सार्वजनिक भागीदारांच्या कराराचे प्रतीक आहे.

उद्दिष्टे

- 1) सार्वजनिक खाजगी भागीदारीचा अर्थ व स्वरूप जाणून घेणे.
- 2) शैक्षणिक क्षेत्रातील सार्वजनिक खाजगी भागीदारीची गरज स्पष्ट करणे.
- 3) शैक्षणिक क्षेत्रातील सार्वजनिक खाजगी भागीदारी समोरील आव्हानांचा शोध घेणे.

संशोधन पद्धती

या शोधनिबंधासाठीची आवश्यक माहिती मिळवण्यासाठी दुय्यम स्रोतांचा वापर करण्यात आला आहे. त्यासाठी विविध संदर्भ ग्रंथ, पुस्तके, साप्ताहिके, वर्तमानपत्र व इंटरनेटचा वापर करून माहितीचे संकलन करण्यात आले आहे.

A. सार्वजनिक खाजगी भागीदारीचा अर्थ

सार्वजनिक खाजगी भागीदारी म्हणजे सरकार आणि खाजगी क्षेत्र यांच्यातील एक सहकार्याचा प्रारूप आहे ज्या अंतर्गत मोठ्या सार्वजनिक सेवांच्या किंवा पायाभूत सुविधा प्रकल्पांच्या अंमलबजावणीसाठी दोन्ही क्षेत्रे एकत्र काम करतात यामध्ये

सरकारी संस्था आणि खाजगी कंपन्या परस्पर सहकार्याने गुंतवणूक धोरणे आणि व्यवस्थापन यांची जबाबदारी वाटून घेतात. शैक्षणिक क्षेत्राचा विचार केल्यास सरकार आणि खाजगी क्षेत्र यांच्यातील सहकार्य,जे शिक्षणाच्या गुणवत्तेत सुधारणा करण्यासाठी, संसाधनांचा अधिक चांगल्या प्रकारे उपयोग करण्यासाठी आणि सर्वसमावेशक शिक्षण प्रणाली निर्माण करण्यासाठी केले जाते.

B. शैक्षणिक क्षेत्रातील सार्वजनिक खाजगी भागीदारीचे स्वरूप

I) शिक्षणातील सार्वजनिक खाजगी भागीदारीचे आर्थिक सहकार्य

- **सरकारी निधी आणि अनुदान:** सरकार शिक्षणासाठी निधी पुरवते आणि खाजगी भागीदार तो निधी वापरून शिक्षण संस्था विकसित करतात. उदा. शाळा बांधणीसाठी किंवा ई लर्निंग सुविधा उभारण्यासाठी अनुदाने.
- **खाजगी गुंतवणूक:** कंपन्या किंवा व्यक्ती संस्थात्मक शिक्षणासाठी गुंतवणूक करतात उदा.CSR (Corporate Social Responsibility) अंतर्गत शाळा किंवा महाविद्यालयांसाठी साधने व सुविधा पुरवणे.
- **सह.निधान (Co-Financing):** सरकारी व खाजगी संस्था मिळून खर्च उचलतात. उदा. तांत्रिक शिक्षण किंवा व्यावसायिक अभ्यासक्रमासाठी निधी उभारणे.
- **शिक्षण कर्ज आणि शिष्यवृत्ती:** खाजगी बँका आणि वित्तीय संस्था विद्यार्थ्यांसाठी शिक्षण कर्ज उपलब्ध करतात. सीएसआर किंवा ट्रस्टमार्फत शिष्यवृत्ती प्रदान केली जाते.
- **उत्पन्न निर्माण करणारे मॉडेल्स:** स्वयंभरण क्षमता असलेले उपक्रम उभारून शिक्षण संस्थांना आर्थिकदृष्ट्या सक्षम करणे. उदा. संशोधन उपक्रम, प्रशिक्षण केंद्रे, ऑनलाईन कोर्सेस इत्यादी.

वरील सार्वजनिक खाजगी भागीदारीच्या आर्थिक सहकार्यामुळे

- शिक्षणाची गुणवत्ता सुधारते.
- संसाधनांची योग्य रीतीने गुंतवणूक होते.
- संशोधन आणि नाविन्यपूर्ण संकल्पनांना चालना मिळते.
- विद्यार्थी व शिक्षकांसाठी अधिक संधी निर्माण होतात. उदा. विद्याभारत योजना (भारत सरकार), केंद्र सरकारची राष्ट्रीय शिक्षण धोरण NEP 2020 अंतर्गत पीपीपी मॉडेलचा समावेश व Adopt a school उपक्रम. येथे खाजगी कंपन्या सरकारी शाळांचे पालनपोषण करतात.

II. पीपीपी द्वारे शैक्षणिक पायाभूत सुविधांचा विकास -

- **शाळा व महाविद्यालय बांधणी आणि देखभाल:** खाजगी भागीदार शाळा किंवा महाविद्यालयांच्या इमारतींचे बांधकाम करतात आणि सरकार त्याचा कालबद्ध भाडेपट्टीवर वापर करते. उदा.केंद्रीय किंवा राज्य सरकारच्या शाळा, खाजगी कपड्यांच्या सहकार्याने बांधल्या जातात.
- **डिजिटल शिक्षण आणि तंत्रज्ञान विकास:** शाळांमध्ये स्मार्ट क्लासरूम, डिजिटल लायब्ररी आणि ई- लर्निंग प्लॅटफॉर्म तयार करण्यासाठी खाजगी कंपन्या गुंतवणूक करतात. उदा. गुगल मायक्रोसॉफ्ट सारख्या कंपन्या शाळांसाठी मोफत डिजिटल शिक्षण साधने उपलब्ध करून देतात.

- **वाहतूक व निवास व्यवस्था:** ग्रामीण भागातील विद्यार्थ्यांसाठी स्कूल बस-सेवा, वसतीगृह आणि होस्टेल्स उभारण्याचे प्रकल्प पीपीपी मॉडेल खाली येऊ शकतात. उदा. राज्य सरकारच्या वसतीगृह योजनांमध्ये खाजगी कंपन्यांचे सहकार्य.
- **प्रयोगशाळा आणि संसाधन संशोधन केंद्रे:** अभियांत्रिकी, विज्ञान आणि वैद्यकीय शिक्षणासाठी अत्याधुनिक प्रयोगशाळा आणि संशोधन केंद्रे उभारण्यासाठी PPP मॉडेलसचा वापर होतो. उदा. IITs आणि सरकारी संशोधन केंद्रांना खाजगी उद्योगाकडून मदत मिळते.

या पायाभूत सुविधांमध्ये सुधारणा केल्यामुळे

- गुणवत्तापूर्ण शिक्षण- उत्तम सुविधामुळे विद्यार्थ्यांना अधिक चांगले शिक्षण मिळते.
- शासनाचा आर्थिक भार कमी- सरकार पूर्ण निधी खर्च करण्याऐवजी खाजगी भागीदारांकडून गुंतवणूक मिळवते.
- नवीन तंत्रज्ञानाचा वापर - डिजिटल शिक्षण स्मार्ट क्लासरूम यामुळे आधुनिक शिक्षण प्रणालीचा विस्तार होतो.
- विद्यार्थ्यांना चांगले वातावरण - उत्तम पायाभूत सुविधा म्हणजे विद्यार्थ्यांसाठी प्रेरणादायी शिक्षण व्यवस्था.

C. शिक्षण क्षेत्रामध्ये सार्वजनिक खाजगी भागीदारीची आवश्यकता –

- **गुणवत्तापूर्ण शिक्षण:** खाजगी क्षेत्राच्या आधुनिक तंत्रज्ञानाचा आणि व्यवस्थापन कौशल्याचा उपयोग करून शिक्षणाची गुणवत्ता सुधारता येते
- **भौतिक सुविधा आणि संसाधनांची उपलब्धता:** सरकारी शाळा आणि महाविद्यालयांमध्ये अद्ययावत प्रयोगशाळा, संगणक कक्ष, डिजिटल शिक्षण सुविधा इत्यादींची गरज पूर्ण करण्यासाठी खाजगी क्षेत्र सहकार्य करू शकते.
- **शिक्षणातील नावीन्य आणि संशोधन:** खाजगी क्षेत्र संशोधन आणि विकासावर भर देते, ज्यामुळे शिक्षण पद्धतीत नाविष्य येते आणि विद्यार्थ्यांना अद्ययावत ज्ञान मिळते.
- **सरकारी भार कमी होतो:** शिक्षण क्षेत्रात सरकारवर मोठा आर्थिक भार असतो. पीपीपी द्वारे हा भार कमी होतो आणि शैक्षणिक क्षेत्रासाठी अधिक निधी उपलब्ध होतो.
- **रोजगार क्षमतेत वाढ:** उद्योग क्षेत्राच्या सहभागामुळे विद्यार्थ्यांना उद्योगाभिमुख शिक्षण मिळते, कौशल्य विकास होतो आणि रोजगाराच्या संधी वाढतात.
- **ग्रामीण आणि दुर्गम भागातील शिक्षण:** अनेक दुर्गम भागात सरकारी शाळा असल्या तरी दर्जेदार शिक्षणाचा अभाव आहे. PPP द्वारे अशा भागात चांगल्या शाळा आणि महाविद्यालय स्थापन करता येतात. उदा. विज्ञान ज्ञान स्कूलस (उत्तर प्रदेश) टाटा ट्रस्टच्या सहकार्याने सरकारी भागीदारी सुरू करण्यात आलेल्या शाळा. राष्ट्रीय कौशल्य विकास अभियान केंद्र सरकार आणि खाजगी क्षेत्राच्या सहकार्याने रोजगार हमी शिक्षण देणारी योजना.

D. शिक्षण क्षेत्रातील पीपीपी समोरील आव्हाने -

शिक्षण क्षेत्रामध्ये पीपीपीचे अनेक फायदे असते तरी त्याची अंमलबजावणी करत असताना अनेक आव्हाने आहेत.

- **सरकारी आणि खाजगी भागधारकांमध्ये समन्वयाचा अभाव:** सरकारी यंत्रणा आणि खाजगी संस्था यांच्या उद्दिष्टांमध्ये काही वेळा तफावत असते. दोन्ही पक्षांमध्ये पारदर्शकता आणि दीर्घकालीन सहकार्याची आवश्यकता आहे.
- **शैक्षणिक गुणवत्ता आणि व्यावसायिक उद्दिष्टांतील तफावत:** खाजगी संस्थांना शिक्षणापेक्षा नफा कमवण्यावर अधिक भर द्यायचा असतो, ज्यामुळे गुणवत्तेशी तडजोड होऊ शकते. काही वेळा सरकारी निकष पूर्ण न करता नफ्यासाठी शुल्कवाढ केली जाते त्यामुळे शिक्षणाचे व्यापारीकरण होण्याची भीती निर्माण होऊ शकते.
- **आर्थिक असमानता आणि परवडणाऱ्या शिक्षणाचा अभाव:** खाजगी गुंतवणुकीमुळे शिक्षण महाग होण्याचा धोका असतो. गरीब आणि मागासवर्गीय विद्यार्थ्यांना या शिक्षणाचा पुरेसा लाभ मिळत नाही.
- **कायदेशीर आणि धोरणात्मक अडचणी:** शिक्षण क्षेत्रातील पीपीपी साठी ठोस आणि स्पष्ट धोरणांची गरज आहे. संमत प्रक्रिया आणि परवाना मिळवण्यासाठी वेळ लागतो, ज्यामुळे प्रकल्प रूढतात.
- **ग्रामीण आणि दुर्गम भागातील अंमलबजावणीतील अडचणी:** शहरी भागात पीपीपी प्रभावी ठरते, पण ग्रामीण आणि दुर्गम भागात ती फारशी प्रभावी ठरत नाही. अशा ठिकाणी भौतिक सुविधा, इंटरनेट, कनेक्टिव्हिटी आणि कुशल शिक्षकांची कमतरता असते.
- **सरकारी नियमन आणि पारदर्शकतेचा अभाव:** अनेक पीपीपी प्रकल्पांमध्ये पारदर्शकतेचा अभाव असतो, ज्यामुळे भ्रष्टाचार आणि गैरवापराची शक्यता वाढते. गुणवत्तेचे निरीक्षण आणि प्रकल्पाचे मूल्यमापन नियमितपणे केले जाणे आवश्यक आहे.
- **कौशल्य विकास आणि उद्योगाभिमुख शिक्षणात तफावत:** शिक्षण क्षेत्रात पीपीपी अंतर्गत रोजगार प्रमुख शिक्षण दिले जाते, पण अनेक वेळा ते उद्योग क्षेत्राच्या गरजांशी जुळत नाही. यासाठी उद्योग आणि शिक्षण क्षेत्रातील सुसंवाद वाढवण्याची गरज आहे.

निष्कर्ष

- 1) शैक्षणिक पीपीपी मध्ये आर्थिक सहकार्याने शिक्षण क्षेत्राला मोठी चालना मिळते. योग्य नियोजन आणि कार्यान्वयनाच्या माध्यमातून सरकारी व खाजगी भागीदारीमुळे शिक्षण क्षेत्र अधिक सक्षम आणि सर्व समावेशक होऊ शकते.
- 2) शैक्षणिक क्षेत्रामध्ये सार्वजनिक खाजगी भागीदारीच्या माध्यमातून पायाभूत सुविधांचा विकास मोठ्या प्रमाणावर शक्य होतो यामध्ये सरकारी आणि खाजगी क्षेत्र एकत्र येऊन भौतिक डिजिटल आणि तांत्रिक सुविधांची उभारणे करतात जेणेकरून शिक्षणक्षेत्र अधिक सक्षम आणि आधुनिक होऊ शकते.
- 3) सार्वजनिक खाजगी भागीदारी ही शैक्षणिक क्षेत्रातील पायाभूत सुविधांच्या विकासासाठी प्रभावी मॉडेल आहे. योग्य नियोजन आणि पारदर्शकतेने PPP प्रकल्प राबवले तर शिक्षणाचा स्तर अधिक उंचावू शकतो आणि सर्वसामान्य विद्यार्थ्यांना उत्तम लाभ होऊ शकतो.

- 4) शिक्षण क्षेत्रात सार्वजनिक खाजगी भागीदारी ही काळाची गरज आहे सरकारी आणि खाजगी क्षेत्रांनी सहकार्य करून शिक्षण व्यवस्थेतील अडचणी दूर केल्या तर भारतातील शैक्षणिक स्तर उंचावेल आणि जागतिक स्तरावर देशाचा विकास वेगाने होईल.
- 5) शिक्षण क्षेत्रात सार्वजनिक खाजगी भागीदारी हे एक प्रभावी मॉडेल आहे. पण त्याची अंमलबजावणी करताना विविध आव्हाने समोर येतात. योग्य नियोजन, पारदर्शकता, कडक नियम आणि दोन्ही पक्षांमधील संवाद वाढवल्यास ही आव्हाने दूर करता येतील.

अशा प्रकारे पी पी पी च्या माध्यमातून गुणवत्तापूर्ण व सर्वसमावेशक शिक्षण देण्याचे उद्दिष्ट साध्य करता येईल.

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सारांश

भारतात शिक्षण हे एक महत्त्वाचे क्षेत्र आहे. ज्या माध्यमातून भारत देशाचा विकासाचा मार्ग सोपा होतो. यासाठी 1986 ची शैक्षणिक धोरण, NEP- 2020 अशी धोरण आखण्यात आली. NEP-2020 मध्ये समान व सर्वसमावेशन शिक्षण धोरणाचा अवलंब करण्यात आला त्यानुसार 2025 पर्यंत 50% विद्यार्थ्यांना डोळ्यासमोर ठेवून कौशल विकास शिक्षणावर भर देण्यात आला आहे. जे विद्यार्थी शिक्षण घेऊन बाहेरच्या जगात जी आव्हाने येतात त्यांना सक्षमपणे सामोरे जाऊ शकतील यासाठी भर देण्यात आला आहे त्यासाठी अपंग, आर्थिक दृष्ट्या मागास विद्यार्थी व सर्वसामान्य विद्यार्थी या सर्वांना डोळ्यासमोर ठेवून अशी धोरणे आखल्याचे दिसून येते.

प्रास्ताविक

भारतासारख्या विकासाच्या मार्गावर असणाऱ्या देशांमध्ये समान व सर्वसमावेशन शिक्षणाची गरज आहे. देशाच्या विकासाचा पाया हा उत्कृष्ट शिक्षण असे मानले जाते. विकसनशील देशात संसाधनाचा पूर्ण वापर, वैश्विक पात्रेवर देशाचे नेतृत्व, देशातील संस्कृतीचे जतन व संवर्धन, राष्ट्रीय एकात्मता, या सर्वांसाठी देशात दर्जेदार शिक्षण उपलब्ध करून देणे महत्त्वाचे असते कारण भारतासारख्या मोठ्या लोकसंख्या असणाऱ्या देशाचे भवितव्य हे तेथील तरुण पिढीच्या कार्यक्षमतेवर अवलंबून असते. " भारताने 2015 मध्ये स्वीकारलेल्या शाश्वत विकासाच्या 2030 च्या कृती कार्यक्रमाच्या उद्दिष्ट 4 मध्ये ' जागतिक शिक्षण विकास कृती कार्यक्रम' समाविष्ट असून हे उद्दिष्ट 2030 पर्यंत " सर्वांसाठी समावेशक आणि समान गुणवत्तेचे शिक्षण सुनिश्चित करणे व सर्वांसाठी निरंतर अध्ययनाच्या शिक्षणाच्या संधीना प्रोत्साहन देणे" याविषयी आहे. 21 व्या शतकात जगात अनेक नवीन तंत्रज्ञानाचा विकास होत आहे. आजच्या AI च्या युगात जर भारताला SDG- 4 उद्दिष्ट 2030 पर्यंत श्राद्ध करावयाचे असेल तर आजच्या तरुण पिढीला सर्वसमावेशन शिक्षणाची गरज आहे. विद्यार्थ्यांना फक्त शिकणे महत्त्वाचे नसून ते भावी जीवनात कृतीत आणि गरजेचे आहे.

उद्दिष्टे

- 1) सर्व विद्यार्थ्यांना गुणवत्तापूर्ण शिक्षण देणे
- 2) विद्यार्थ्यांना व्यवसायिक शिक्षणाची जोडणे
- 3) पायाभूत सुविधांचा विकास करणे
- 4) सर्वसमावेशक शिक्षण

संशोधन पद्धती

या शोधनिबंधासाठी दुय्यम सामग्रीचा वापर केला आहे. यासाठी संदर्भ ग्रंथ, इंटरनेट संबंधित संकेतस्थळे, NEP-2020 अहवाल यांच्यामार्फत माहिती जमा केली आहे.

"समान व सर्वसमावेशक शिक्षण" पारंपारिक शिक्षणाला बगल देऊन NEP-2020 नुसार जे शिक्षण दिले जाणार त्यानुसार जीवन, चारित्र्य यांचे गुणवत्ता वाढविणारे शैक्षणिक धोरण असल्याचे दिसून येते. या शैक्षणिक धोरणानुसार आनंददायी, आकर्षक, अनुभवात्मक, सर्वसमावेशक संवादात्मक चर्चा केंद्रित, तार्किक विचारसरणी, वाढवणाऱ्या शिक्षणाचा समावेश केल्याचे दिसून येते. यामध्ये मानवी कौशल्याचा व मेंदूला चालना देऊन नवीन initiator निर्माण करण्याचा प्रयत्न करण्यावर भर देण्यात आला आहे. ज्यामुळे Digital india, AI ज्या जगात विद्यार्थ्यांना येणाऱ्या आव्हानांना सामोरे जाण्यासाठी सक्षम बनविणाऱ्या धोरणाचा अवलंब केला आहे.

तसेच विद्यार्थ्यांना व्यावसायिक शिक्षणाशी जोडणे यासाठी नवीन शैक्षणिक धोरणानुसार विद्यार्थ्यांच्या व्यवसायिक शिक्षणाला प्रोत्साहन दिले आहे. शिक्षण मंत्रालयाने या क्षेत्रात अनेक उपक्रम हाती घेतल्याचे दिसून येते. कारण रोजगार क्षमता व गुणवत्ता वाढविण्यासाठी कौशल्य आधारित शिक्षण आवश्यक आहे. जुन्या शैक्षणिक धोरणाचा सुशिक्षित बेकारांची संख्या वाढत असणारा दोष दूर करण्यासाठी NEP-2020 मध्ये असे उपक्रम समाविष्ट करून तरुण वर्गाला वर्गातच प्रात्यक्षिक मार्फत व्यावसायिक शिक्षण देण्याचे धोरण अवलंबण्यात आले आहे. NEP-2020 नुसार 2025 पर्यंत 50% माध्यमिक शाळेतील विद्यार्थ्यांना व्यवसाय शिक्षणाची संधी मिळण्याची शक्यता वर्तवली जाते. NEP-2020 नुसार 6 वी ते 8वी विद्यार्थ्यांना 10 दिवस शालेय दप्तर घेऊन जाण्याची गरज नाही या दहा दिवसात विद्यार्थी एखादे व्यावसायिक कौशल्य स्वतः करून शिकण्यावर भर देतील यामध्ये विविध कलांचा समावेश असणार आहे जसे मातीची भांडी बनवणे, भाग काम करणे, हस्तकलांचा नमुने बनवणे, इत्यादींचा समावेश असणार आहे.

भारतीय राज्यघटनेमध्ये सर्वांना समान शिक्षणाचा अधिकार दिलेला आहे. विद्यार्थ्यांमध्ये कौशल्याचा विकास व आर्थिक सक्षमता निर्माण करण्यासाठी सर्वांना समान शिक्षण मिळणे हा त्यांचा अधिकार आहे. शिक्षणामुळे राष्ट्र विकासाला चालना मिळते सरकार जे डिजिटल इंडिया आणि समग्र शिक्षा या अभिनयातून काम करत असताना शालेय शिक्षण पातळीवर पायाभूत सुविधा विद्यार्थ्यांना गरजेचे असतात. त्यामध्ये विद्यार्थ्यांचा शारीरिक विकास होण्यासाठी मैदानाची गरज आहे. वाढती लोकसंख्या व जागेची कमतरता यामुळे अनेक सरकारी शाळांना मैदानाची कमतरता भासताना दिसत आहे. अशावेळी विद्यार्थ्यांना मैदानी खेळातून ज्या काही रोजगाराच्या संधी आहेत त्यांचा विचार करून खुली मैदानी, वर्ग खोल्या, ग्रंथालय, संगणक, अशा पायाभूत सुविधा प्रत्येक शाळा, महाविद्यालयांना पुरवणे. भारतात डिजिटल इंडिया आणि AI चा प्रत्येक क्षेत्रात वापर होत आहे. अशावेळी विद्यार्थ्यांच्या सर्वांगीण विकासासाठी संगणक व इंटरनेट असणे योग्य ठरते. त्याचबरोबर विद्यार्थ्यांच्या आरोग्यासाठी स्वच्छ शौचालय, स्वच्छ पिण्याचे पाणी, अशा पायाभूत सुविधा मध्ये शहरी व ग्रामीण शाळांमध्ये तफावत दिसते. सर्व विद्यार्थ्यांसाठी अनुकूल शिक्षण वातावरण व समान संसाधनाची वाट अत्यंत महत्त्वाचे ठरते.

भारतीय राज्यघटनेने सर्वांना समान दर्जा दिलेला आहे. सामाजिक न्याय व समानता साध्य करण्यासाठी सर्व समावेशक शिक्षण हे सर्वात महत्त्वाचे आहे. ज्यातून समाजाच्या सर्वांगीण विकासावर अनुकूल परिणाम होतो. NEP-2020 चहा धोरणानुसार विशेष गरजा असलेल्या मुलांसाठी शैक्षणिक प्रवेश व सहभागातील असमानता कमी करण्यासाठी समस्या व आव्हाना यांच्याकडे लक्ष केंद्रित केल्याचे आढळते. त्यामध्ये अपंगत्व असलेल्या विद्यार्थ्यांसाठी NCERT - कायदा -2016 नुसार PRASHAST - प्री असेसमेंट हॉलिस्टिक स्क्रीनिंग टूलपुस्तिका, मोबाईल APP विकसित करून आशा मुलांना शैक्षणिक सुविधा पुरवून समान व सर्व समावेशक शिक्षणाकडे वाटचाल झाल्याचे दिसते. NCERT - ने AUDIO Book मार्फत मुलांमध्ये वाचन कौशल्याचा विकास होण्यासाठी बरखा मालिका " सर्वांसाठी वाचन मालिका" ही 40 कथांचा

समावेश असलेली श्रेणीबद्ध वाचन साहित्य निर्माण केले. शिक्षण मंत्रालयाने सुरू केलेल्या विविध उपक्रमांना त्यांचे सर्व समावेशन शिक्षणाचे उद्दिष्ट साध्य होण्यासाठी NCERT ने पाठिंबा दिल्याचे दिसून येते तसेच केंद्र पुरस्कृत समग्र शिक्षा ही योजना पूर्व प्राथमिक ते वरिष्ठ माध्यमिक वर्गापर्यंत शालेय शिक्षण यासाठी एकात्मिक योजना शिक्षण मंत्रालयाने सुरू केली आहे.

समारोप

भारतासारख्या लोकसंख्येच्या बाबत क्रमांक एकवर असणाऱ्या देशात जी तरुण पिढी आहे अशा सर्वांच्या कार्यक्षमता व त्यांच्या बुद्धीचा उपयोग करून 2030 पर्यंत आर्थिकदृष्ट्या सक्षम भारत बनवण्यासाठी NEP- 2020 नुसार समान व सर्व समावेशन शिक्षण यावर भर देऊन शिक्षण मंत्रालयाने अनेक बदल करून हे धोरण अमलात आणलं आहे. ज्यामध्ये विद्यार्थी केंद्रित धोरणांचा अवलंब केल्याचे आढळते. विद्यार्थ्यांना त्यांच्या बुद्धी कौशल्याचा वापर करून भविष्यात येणाऱ्या अडचणींना सामोरे जाण्यासाठी अशा शैक्षणिक धोरणाचा अवलंब केल्याचे दिसून येते.

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NEP 2020: A New Era in Indian Education –Implications for Teachers, Students and Society

(ISBN: 978-93-47587-87-0)

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