

Flora and Fauna



रयत शिक्षण संस्थेचे,
अण्णासाहेब आवटे आर्टस्, कॉमर्स हुतात्मा बाबू गेनू सायन्स कॉलेज आणि
सौ. कुसुमबेन कांतीलाल शाह आर्टस्, कॉमर्स, सायन्स ज्युनियर कॉलेज,
मंचर, ता. आंबेगाव, जि. पुणे, ४१०५०३.

Flora and Fauna

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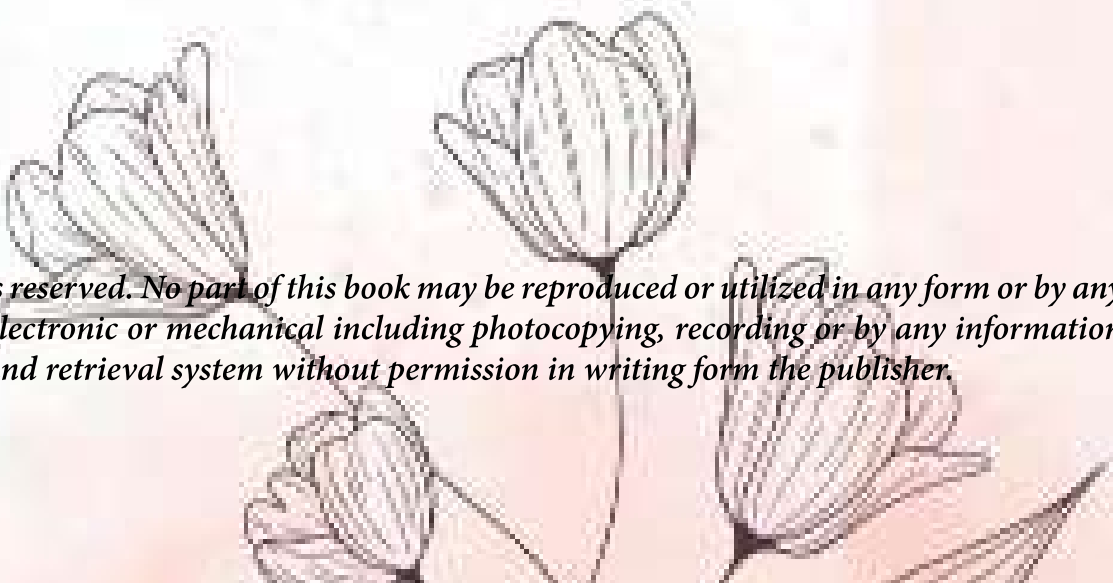
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Physics

Physics of Nanomaterials

M. Sc. (Sem. - IV) (PHCT - 243 (B4)) (Paper-III)

◆ Dr. R. B. Bhise
◆ Prof. Smt. K. B. Lende

◆ Dr. M. D. Dhiware
◆ Prof. Smt. D. S. Pawar

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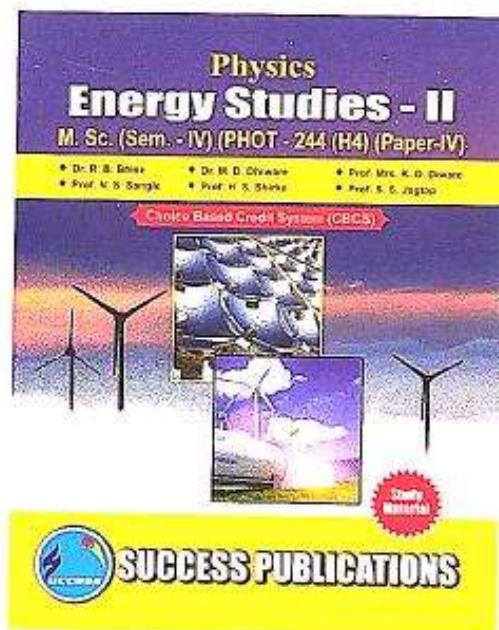
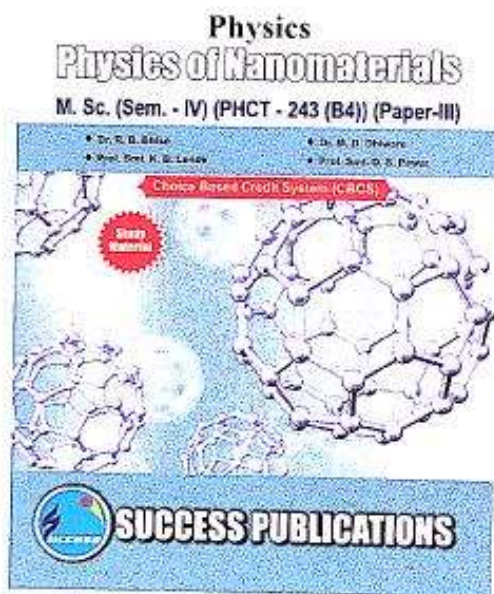
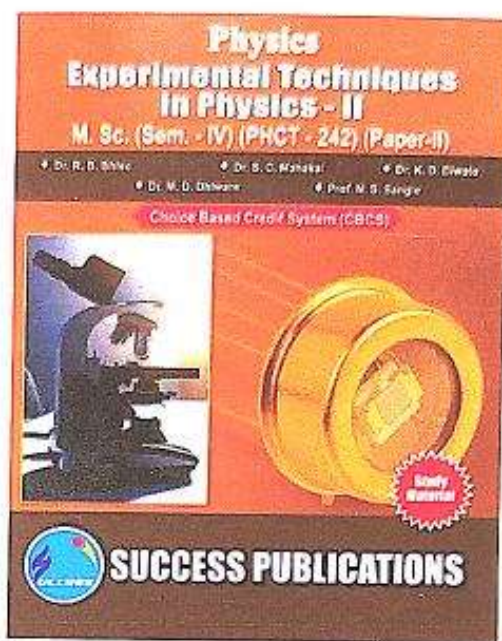
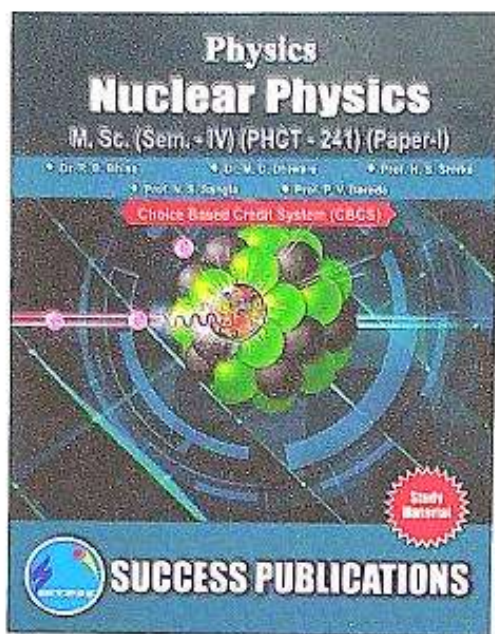


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Energy Studies - II

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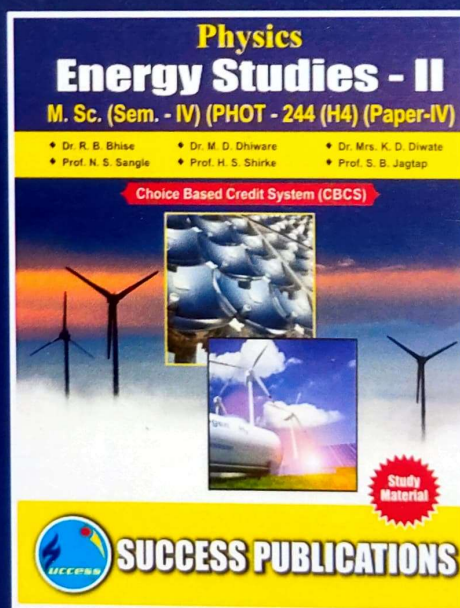
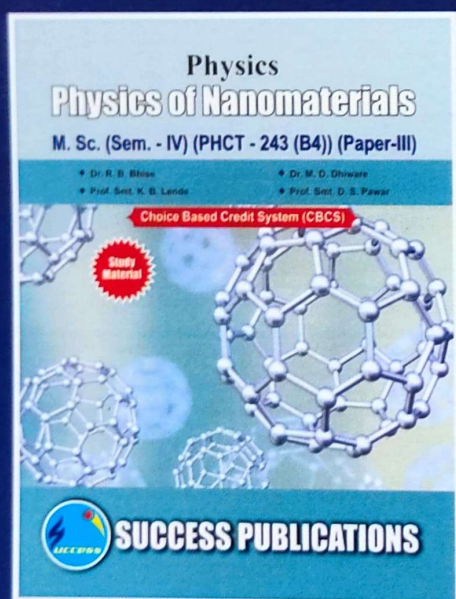
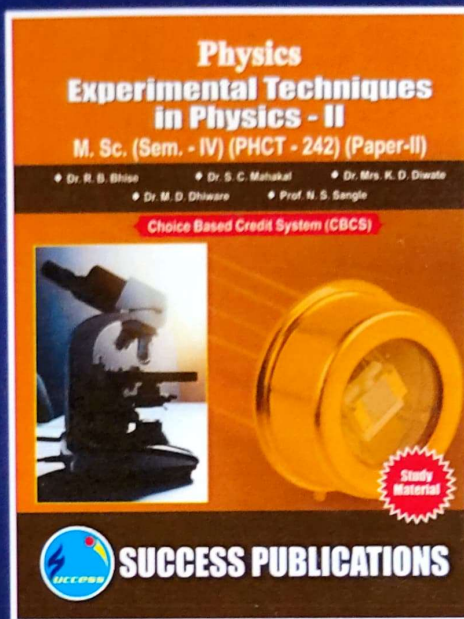
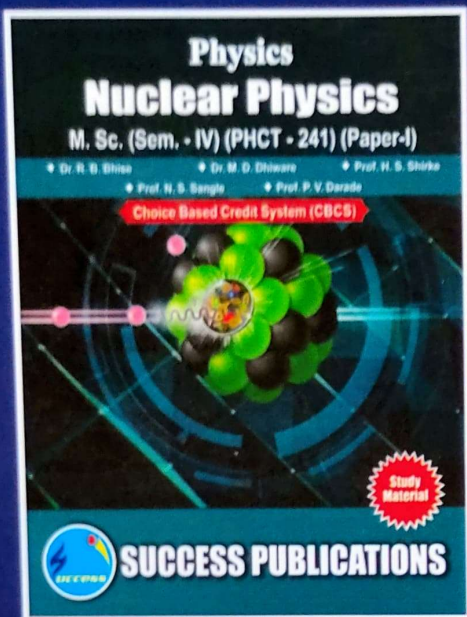


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Solid State Physics

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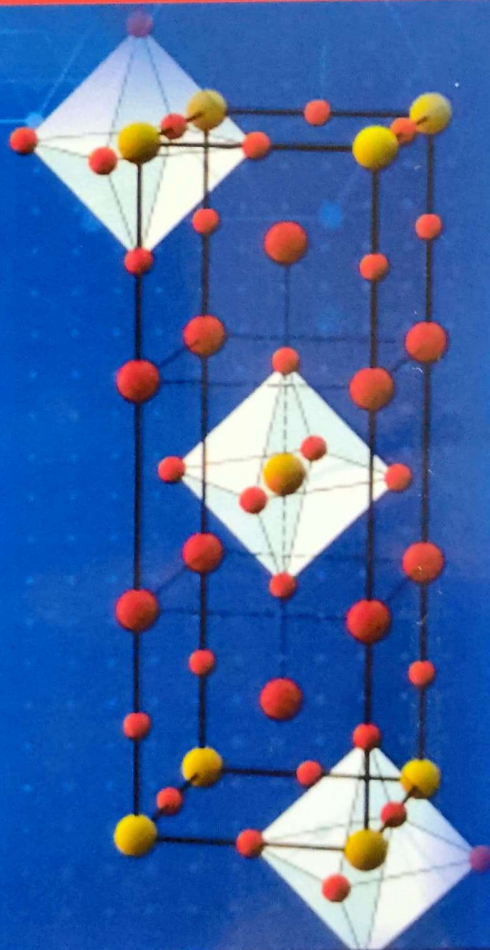
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Diamagnetism and Paramagnetism

UNIT

2

- 2.1 Introduction
- 2.2 Classical theory of Diamagnetism
- 2.3 Langevin theory of Paramagnetism
- 2.4 Quantum theory of Paramagnetism
- 2.5 Paramagnetic susceptibility of conduction electron
- 2.6 Magnetic properties of rare earth ions and iron group ions with graphical representation
- 2.7 Crystal field splitting
- 2.8 Quenching of orbital angular momentum

2.1 Introduction :

Magnetic materials fascinated human beings for over 4000 years. Magnetism is a phenomenon through which materials assert an attractive or repulsive force or influence on other materials. In the modern concept all materials are said to exhibit magnetism, though of different nature.

When a substance is placed in a magnetic field \vec{H} substance get magnetized. The magnetic dipole moment per unit volume \vec{M} is produced inside the substance is called magnetization. The relation between magnetization and magnetic field is given by the equation

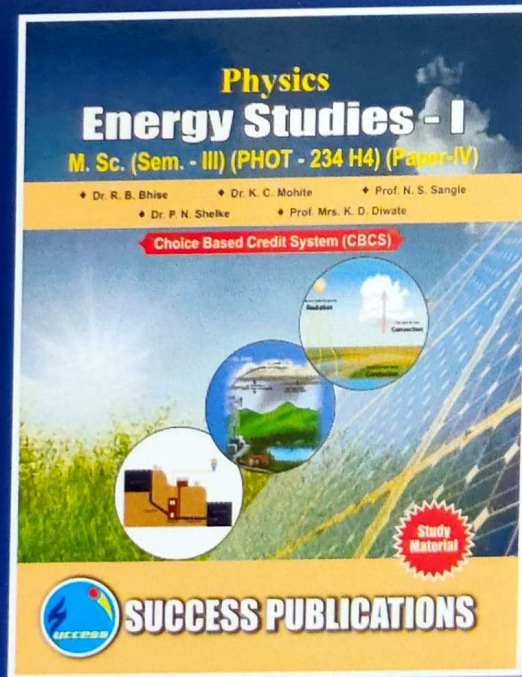
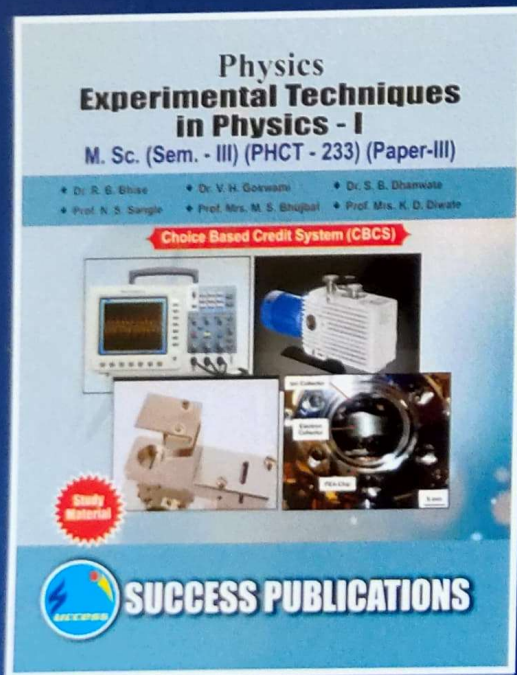
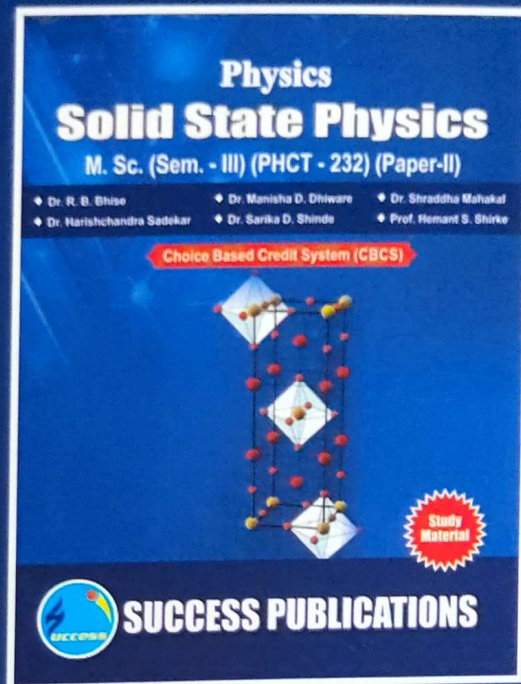
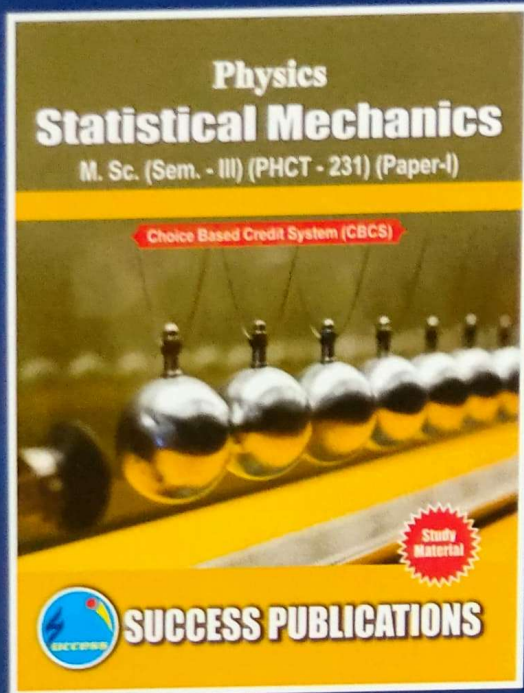
$$\vec{M} = \chi \vec{H}$$

The constant χ is called magnetic susceptibility of the material. It is defined as the ratio of magnetization M to the magnetic field intensity H . The value of χ for vacuum or free space is zero because there is no magnetism in vacuum.

In this unit we shall discuss temperature dependence of susceptibility using Langevin's function for diamagnetic and paramagnetic materials. We shall also discuss crystal field splitting and quenching of orbital angular momentum.

2.2 Classical Theory of Diamagnetism :

Diamagnetic materials are those materials in which number of electrons in the outermost shell is two. These two electrons revolve around the nucleus in a definite path called orbit of electron with same angular velocity ω but in opposite direction.



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Physics

Nuclear Physics

M. Sc. (Sem. - IV) (PHCT - 241) (Paper-I)

◆ Dr. R. B. Bhise

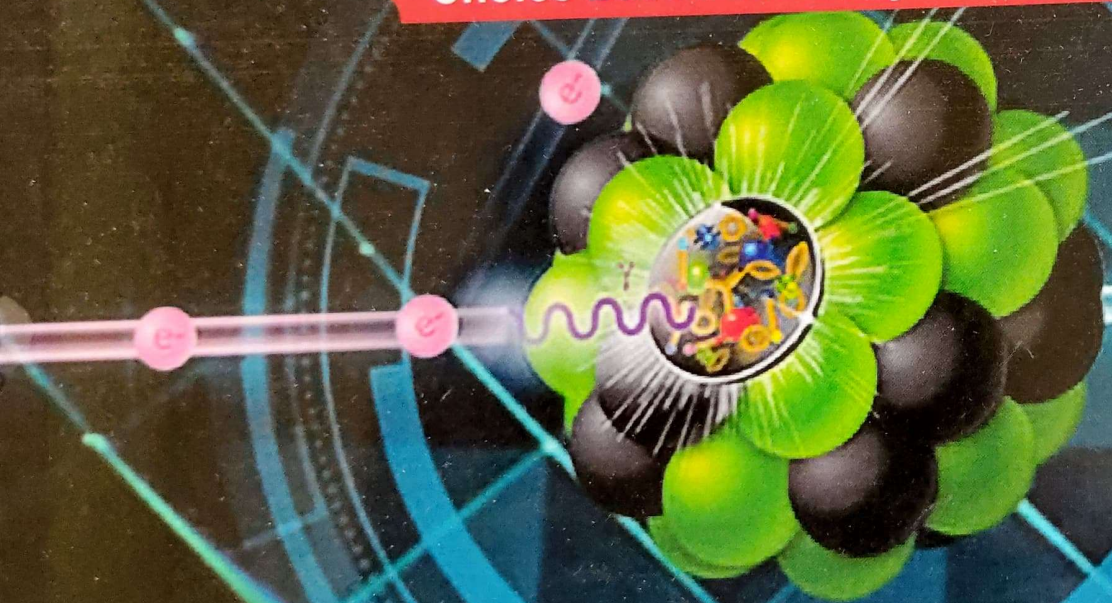
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Radiation Detectors and Nuclear Models

UNIT

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- 2.1 Introduction
 - 2.2 Detectors
 - 2.3 Nuclear Models
-

2.1 Introduction :

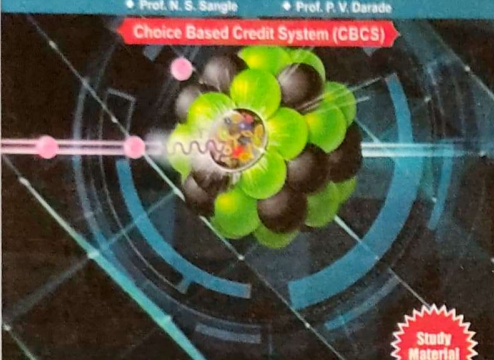
If we perform any nuclear physics related experiment, nuclear radiation detectors play vital role in such measurements. Nuclear radiation is a general term and it includes a variety of energetic particles like electrons, protons, α -particles, heavy ions or neutral radiations like neutrons, X-rays or γ -rays etc. The development of radiation detectors started with the discovery of radioactivity by Henry Becquerel in 1896. He noticed that the radiations emitted by uranium salts blacken photosensitive paper. So, the first radiation detector was a photosensitive paper or X-ray film and was extremely simple. In the beginning of twentieth century, Rutherford used flashes of light produced in ZnS as nuclear radiation detector. These simple detectors used at that time were very primitive. They could simply indicate the presence or absence of radiations. Nowadays, it is not sufficient only to detect the presence or absence of radiations but one could also like to know the nature of radiations, i.e. whether the radiations are electrons, protons, α -particles, X-rays or γ -rays etc. On top of that, accurate energy and momentum measurements are often required. In some applications an exact knowledge of the spatial coordinates of the particle trajectories is also of interest.

Further, we will discuss some nuclear models in detail. We know that the size of nucleus is very small and nuclear forces are more complicated than other well-known forces. In fact, the picture of nuclear forces is still not clear. In order to understand and predict the properties of the nucleus, we have to know forces completely. For knowing nuclear forces, we adopt different approach. In nuclei, we choose an oversimplified theory, the treatment which is mathematically possible, but theory should be rich in physics. If this theory is fairly successful in accounting for at least a few properties of the nucleus, we can then improve the model by adding additional terms so that it is capable to account more nuclear properties. So, due to the lack of detailed knowledge of nuclear


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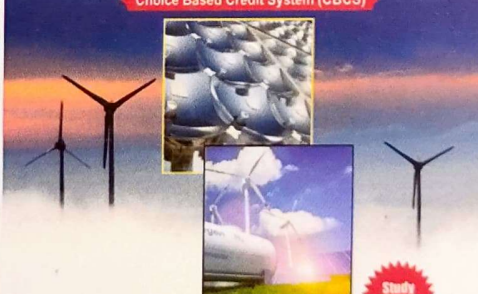


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SWAYAM EDUCATION: A SUPPORT SYSTEM FOR BUSINESS OWNERS

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Abstract:

One of the key features of Swayam Education is its emphasis on practical, hands-on learning. The platform offers a range of interactive tools and resources that allow students to apply what they've learned in real-world scenarios. This approach helps to prepare young entrepreneurs for the challenges they will face when starting and growing their businesses.

Overall, Swayam Education provides a valuable resource for young entrepreneurs looking to build successful businesses. Its flexible curriculum and hands-on approach make it a valuable tool for anyone looking to acquire the skills and knowledge necessary to succeed in the world of business.

Swayam Education is a comprehensive platform designed to support young entrepreneurs in their pursuit of success. It provides a range of services and resources to help budding entrepreneurs acquire the skills and knowledge necessary to build successful businesses.

Introduction:

Entrepreneurship has become an integral part of the modern economy, providing opportunities for individuals to create and run their own businesses. Young entrepreneurs, in particular, bring a unique energy, creativity, and perspective to the marketplace, which is essential for the growth and success of small businesses. However, starting and running a successful business can be challenging, especially for individuals who lack the necessary resources, support, and guidance. This is where Swayam Education comes in, offering a comprehensive support system to young entrepreneurs and helping them turn their ideas into realities.

Swayam Education is a non-profit organization that aims to provide young entrepreneurs with the tools and resources they need to start and grow their businesses. It provides a comprehensive range of services, including training programs, mentorship, and access to funding. The organization's mission is to empower young entrepreneurs and help them achieve their full potential.

One of the core components of Swayam Education's support system is its training programs. These programs are designed to provide young entrepreneurs with the skills, knowledge, and confidence they need to succeed. They cover a wide range of topics, including business planning, marketing, finance, and leadership, and are taught by experienced entrepreneurs and business professionals. Participants also have the opportunity to network with other entrepreneurs and gain valuable insights into the challenges and opportunities of starting and running a business.

In addition to its training programs, Swayam Education also provides mentorship to young entrepreneurs. Mentors are experienced business leaders and entrepreneurs who have a wealth of knowledge and experience to share. They work one-on-one with entrepreneurs, providing guidance, support, and advice as they navigate the challenges of starting and growing their businesses. Mentors also provide entrepreneurs with a valuable network of contacts and help them make connections with potential customers, investors, and suppliers.

Swayam Education also provides access to funding for young entrepreneurs. The organization has established partnerships with various financial institutions and investors to provide entrepreneurs with access to the capital they need to start and grow their businesses. This can be particularly valuable for young entrepreneurs who may not have a strong credit history or access to traditional forms of funding. Swayam Education also provides guidance and support to entrepreneurs as they navigate the funding process, helping them secure the financing they need to succeed.

In addition to its core programs, Swayam Education also provides a range of additional resources and support to young entrepreneurs. These include business incubators, co-working spaces, and access to a network of experts and resources. These resources are designed to help entrepreneurs develop their businesses and overcome the challenges they face as they grow.

The impact of Swayam Education's support system for young entrepreneurs has been significant. The organization has helped hundreds of young entrepreneurs turn their ideas into successful businesses by providing them with the skills, knowledge, and resources they need to succeed. Many of these businesses have gone on to create jobs, stimulate local economies, and contribute to the growth and success of their communities.

In conclusion, Swayam Education is a critical support system for young entrepreneurs, providing them with the tools and resources they need to start and grow their businesses. Its comprehensive range of services, including training programs, mentorship, and access to funding, has helped hundreds of young entrepreneurs achieve

their goals and realize their full potential. By providing young entrepreneurs with the support they need, Swayam Education is helping to drive economic growth, create jobs, and build stronger communities.

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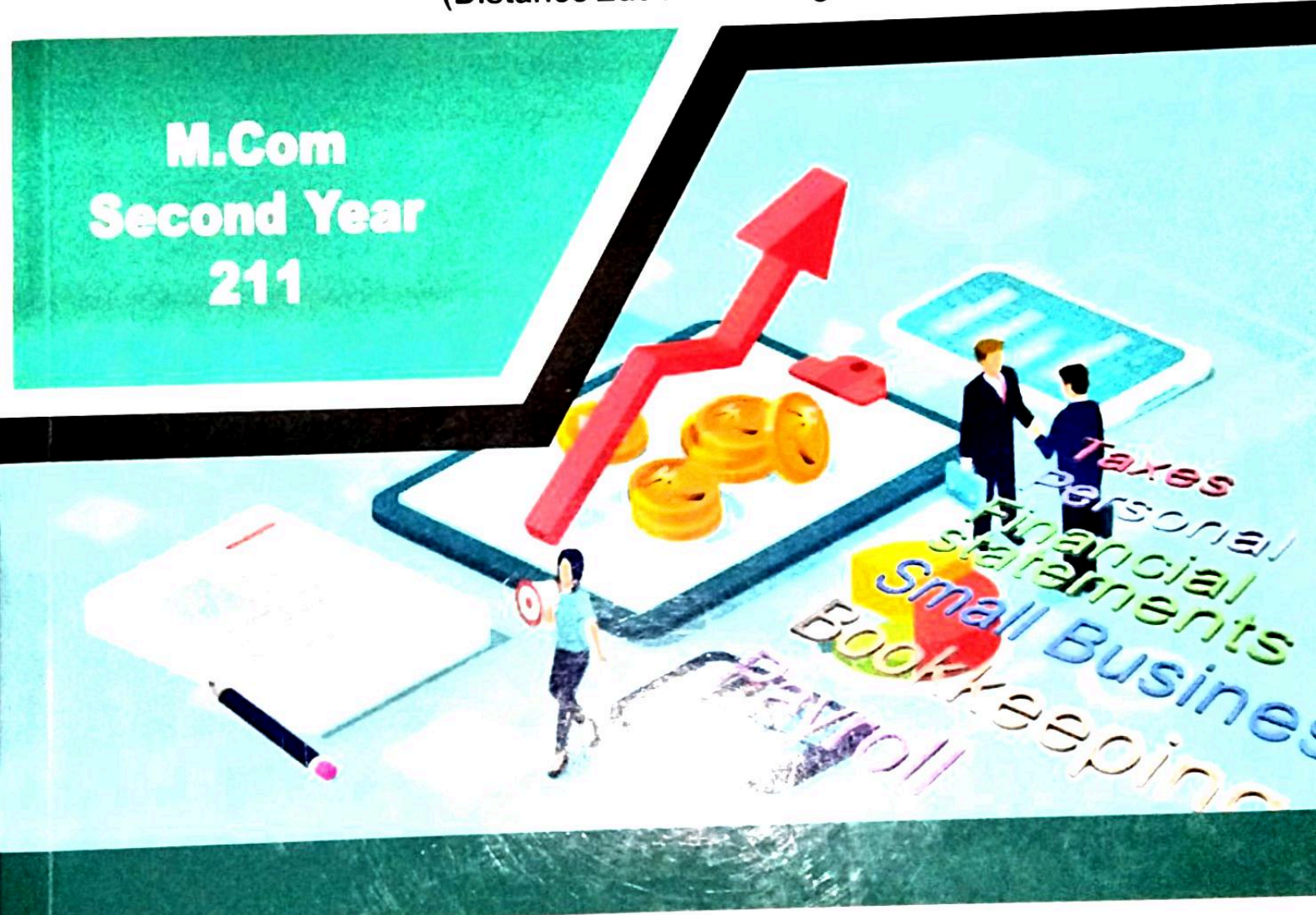
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A Text Book of
FLORICULTURE AND NURSERY MANAGEMENT

For

**M. Sc. Part I Semester II Choice Based Optional Paper
BODT 124: Botany Theory Paper 4 (2 Credits)**


(Savitribai Phule Pune University, Pune.)

Prof. V. S. Kumawat

Prof. A. K. Bhor

Dr. N. B. Admuthe



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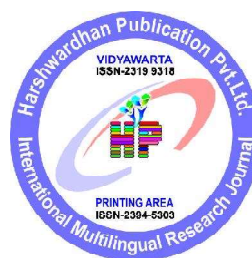
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Dedication's

“Dedicated to Indian Farmers and Floriculturist as well as Nursery Entrepreneurs, **Gardeners and Students of Botany**”



Preface

This book is written for M. Sc. Part I Botany, Semester II Paper 4, BODT: 124 Floriculture and Nursery Management (For 2 Credits) as per CBCS Syllabus Pattern implemented by Savitribai Phule Pune University, Pune from Academic Year 2019-2020.

This course is designed with an objective to encourage and support the students of Botany for the growing demands and challenges new trends in the Applied Botany. This also develop the ability for the application of acquired knowledge of Botany to provide self-employment to Botany students.

All the topics in this course are written with full details, essential depth with maximum figures included.

The qualified authors team have given their best efforts while writing this book. Not only Botany students but Farmers, Nursery Men, Gardeners will like this book.

We acknowledge all Books, websites, literature referred while writing this book. The complete list is given under Bibliography.

We greatly appreciate and thanks the complete team of Harshawardhan Publication Pvt. Ltd. and their proprietor Dr. Babu G. Gholap.

Prof. V. S. Kumawat

Prof. A. K. Bhor

Dr. N. B. Admuthe

Syllabus ...**M. Sc. Part I Semester II****BODT 124: Botany Theory Paper 4- Floriculture and Nursery Management****(2 Credits- 30 Lectures)****Credit-I (Cr 1): Floriculture 15 L**

1. Floriculture: Concept, definition, Scope and Importance of floriculture, global scenario of flowers, scope of floriculture in India **2L**

2. Pre-requisites of commercial floriculture: soil and climate requirements, field preparation, systems of planting, water and nutrient management, weed management, rationing, training and pruning, pinching and disbudding, special horticultural practices, use of growth regulators, physiological disorders and remedies **3L**

3. Harvesting and processing of flowers: harvesting indices, harvesting techniques, postharvest handling and grading, pre cooling, packing and storage, value addition, concrete and essential oil extraction, transportation and marketing, export potential, agri-export zones **5L**

4. Commercial production of flowers: varietal wealth and diversity, climate, soil preparation, aftercare and manuring, pruning and training, harvesting, yield, important pests and diseases, control measures, harvesting, grading, packing and marketing, storage and transport, export potential of cut flowers: Chrysanthemum, Gerbera, Tuberose, Anthurium; Loose flowers- Scented Rose and Jasmine **5L**

Credit II (Cr 1): Nursery Management 15L**1. Introduction 1 L**

2. Nursery Site: Types of Nurseries, Water, Location, Topography, Size of Nursery, Soil **2 L**

3. Preparation of the Site: Clearing of surface, Removal of Top Soil, Erosion Control and Wind Damage, Surface Dressing, Shape, Fencing. **2 L**



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Rayat Shikshan Sanstha's

Annasaheb Awate Arts, Commerce & Hutatma Babu Genu Science College, Manchar



Implementation of New Education Policy 2020: Adaptation of Guidelines on NHEQF & Curricular Framework & Credit System for Four Year Undergraduate Programme (FYUP)

Editors

Kanade K. G.

Shaikh E. A. | Dange A. M.

Bhor A. K. | Ugale S. D.

Proceeding

of

BOD, SPPU, Pune Sponsored

State Level Workshop

on

Implementation of National Education

Policy 2020:

**Adaptation of Guidelines on NHEQF &
Curricular Framework & Credit System for
Four Year Undergraduate Programme**

(FYUP)

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Editors

Kanade K.G.

Shaikh E.A.

Dange A.M.

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Ugale S.D.

From Editor's Desk

Formal education is the thing that differentiate the human beings from the rest of living beings on this plant. The education, as a mean for survival in demanding, challenging and competitive world, need to be evolved to keep up with the economic and technological changes and job trends across the globe.

In recent years, there has been a growing interest in the concept of a four-year undergraduate program as an alternative to the traditional three-year program. The idea behind the four-year program is to provide students with a more comprehensive education, allowing them to develop a deeper understanding of their chosen field of study and prepare for a wider range of career opportunities.

The New Education Policy, proposed by the Government of India in 2020, had identified the need for this structural change, to move towards the modernization of higher education and provide a more well-rounded and valuable educational experience for students. However, the policy makers started sensitizing the stakeholders about the proposed changes in the curricular framework and seeking their feedbacks and suggestions to anticipate and identify the probable obstacles in its effective implantation.

As part of their initiative, the Savitribai Phule Pune University had sponsored a state level workshop on the theme of 'Implementation of New Education Policy 2020: Adaptation of Guidelines on National Higher Education Qualification Framework (NHEQF) and Four Year Undergraduate Programme (FYUP)'. The organizing committee of this workshop invited the insightful and critical views on the theme of the workshop from the stakeholders. With a rigours editorial process articles meeting the expectations are selected to be the part of this book.

The book is designed to include information on newly proposed national higher education qualification framework and curricular framework and credit system for four year undergraduate programme. It covers the information about major/core courses, minor courses, generic electives, skill-based and vocational courses, internships, projects, community engagement – features, goals, and credit weight assigned to them. The book also comments on how the provisions such as multiple entry and exit, digitalization of

credits, promotion of ODL, cluster of colleges, and professor of practices can be effectively used to realization of the outcomes of FYUP.

The book highlights the importance of innovative and technology-based pedagogy for students' engagement. The book guides the readers on how the Outcome-Based Teaching-Learning and Evaluation process could shape the overall experience of the students and teachers in coming year.

The book is also provide information on stakeholder perceptions and concerns about the proposed changes in programme structure and the challenges in the effective implementation of FYUP.

We are thankful to the authors for their creative and critical contribution. We are also like to express our gratitude towards the chairman, secretary and joint-secretary of Rayat Shikshan Sanstha for their visionary guidance in adaptation to new development in the field of higher education. We grateful to the Hon. Diliprao Walse Patil, chairman of College Development Committee and the Prin. K.G. Kanade sir for their support in organization of this state level workshop. We are also thankful to the authorities of Savitribai Phule Pune University for partially sponsoring the publication cost of this book.

Editors:

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Shaikh E.A.

Dange A.M.

Bhor A. K.

Ugale S.D.

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FOUR-YEAR UNDERGRADUATE PROGRAMME: UNDERSTANDING THE POLICY, PROVISIONS, PERCEPTIONS AND PROBLEMS IN THE LIGHT OF NEP 2020

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Abstract:

Quality education is core to human development. Education is provided to empower individuals with knowledge, skills, and values that are relevant to economic and technical changes happening in the world. Thus, the education system needs to evolve with time. Post-independence, the Indian education system has evolved in sequential steps. The first education policy was proposed in 1968, then in 1986, which was only reviewed in 1992, and now the new education policy is being introduced in 2020. With this policy, the government proposed many new provisions, like multiple entry and multiple exits, the cluster of colleges, crediting prior and experiential learning, the four-year undergraduate program with honors or research, integrated post-graduate programs, etc.

In this article, an attempt is made to review the features of the four-year undergraduate program (FYUP), the provisions made in NEP 2020 for its implementation, the perception of the stakeholders towards the proposed changes, and identify the problems in the implementation of FYUP. To meet the objectives of this article, the NEP 2020 policy document, reports of task committees on FYUP, UGC guidelines related to NEP 2020, books and documents related to NEP 2020 published by the government, journal articles, and newspaper articles were reviewed. It was found that FYUP has made undergraduate education flexible and innovative. The multidisciplinary nature, incorporation of the Indian knowledge system, crediting of prior and experiential learning, multiple entry and exit options, and transferable credits are some of the strengths of this

Concerns about NEP implementation include failure to incorporate the learning outcomes for levels 7 and 7.5, ignoring the richness of knowledge base from other religions, failing to promise the allocation of a separate budget to realize the goals of FYUP, administrative hiccups related to the approval of changing workload, and the risk of increased dropouts in institutions located in rural and tribal areas, due to migration to other institutes/universities due to multiplication of students.

Keywords: NEP 2020, NHEQF, FYUP, NCrF, Stakeholders Perception, Prior Learning, Experiential Learning

Background of New Educational Policy 2020:

Education is meant for the empowerment of individuals, to make them productive and competent global citizens. Education sensitive to sociocultural, economic and technological changes is the backbone of individual and national development. Thus, the process evolved to periodically review the goals of education and make it more relevant to the changing trends. As a process, the government of India prepared two policy documents to strengthen the quality of education, namely in 1968 and 1986. The 1986s educational policy was expected to be reviewed every five years, but in reality, it was reviewed only once in 1992. Educationalists found that the educational goals proposed by the 1986's educational policy somewhere lost their relevance to the economic and technical changes happening worldwide. It created a huge gap in education and employment as many industrialists found the Indian graduates lacking employability-related skills. This created an opportunity for the revision of the 1986s educational policy and proposing a new one.

In 2015, the government of India, constituted a committee under the chairmanship of Subramanian to prepare the draft of a new proposed educational policy. The committee invited views and feedback from the stakeholders. The committee led by Kasturirangan reviewed approximately two lakh suggestions to prepare the draft of the New Education Policy which was submitted to the ministry on 31st May 2019. Further, the draft prepared by the committee was made available on the Ministry of Education's website to seek feedback from the stakeholders and the final version of the policy was accepted in 2020.

This New Educational Policy 2020, to increase the gross enrollment ratio (GER) to 50% by 2035, will transform the Indian educational system in the next 15 years through its impact on 15.5 lakh schools, 50,000 universities and colleges, 1.08 crore teachers and 28.53 crore students across the country.

What is New in New Education Policy?

- A. Outcome based Curriculum framework, Education and Assessment:** The NEP 2020 encourages innovation and flexibility in programme design and curriculum development to help in formulating graduate attributes, Programme Learning Outcomes (PLOs), Course Learning Outcomes (CLOs) and Specific Learning Outcomes (SLOs) measuring the changes in knowledge, skills, attitude and values of the students at a different level of learning. The policy identified 15 graduate attributes to guide the teaching-learning and assessment process. These graduate attributes can be categorised into four categories: (i) Discipline-specific and Digital competencies (Disciplinary

knowledge, research-related skills and digital literacy); (ii) soft skills (communication skills, teamwork, and leadership qualities); (iii) cognitive skills (critical thinking, reflective thinking, analytical reasoning, scientific reasoning, and moral/ethical reasoning); and (iv) Individual accountability for academic growth (self-directed learning and Lifelong learning).

The teaching is expected to be student-centric and based on multi-modal pedagogy such as lectures, tutorials, projects, assignments, seminars, presentations, self-study, vocational training, outreach activities, fieldwork, etc. The attainment of learning outcomes will be based on a well-established outcome-based assessment system. Table 1 explains the outline of the curricular framework proposed for the 4-year undergraduate programme (FYUP). It includes information about various courses designed to meet different goals and has unique features that differentiate them from other courses. Further, the NEP 2020 proposes uniform course codes for a different level of major, minor, and generic elective courses, like 0-99 for prerequisite courses, 100-199 for foundation courses, 200-299 for intermediate courses, 300-399 for higher courses, 400-499 for advanced courses, etc.

Programme structure: The NEP modified the existing program structure. Earlier, the students had to earn a minimum of 120 credits in three years to acquire the degree. The NEP 2020 proposed a four-year undergraduate program (honors or research degree) in which the students are expected to earn a minimum of 40 credits per year and a minimum of 160 credits in four years. The NEP emphasizes interdisciplinary and multidisciplinary courses as part of undergraduate education. In addition to the regular two-year master's program, NEP proposed a one-year master's program. Students completing a four-year undergraduate degree with research will be considered eligible for a PhD program, and students completing a four-year undergraduate degree with honors will be considered eligible for a one-year master's program. This change in program structure is expected to increase the speed of student progression to a higher level of education. The figure provided below indicates the flow of progress in higher education in the context of the National Higher Education Qualifications Framework (NHEQF).

Table 1: Information about course levels, course codes and their features in curricular framework and credit system for four-year undergraduate programme (FYUP).

Curricular Framework and Credit system for 4-year undergraduate program (FYUP)		
Level	Course Code	Features and Goals
Pre-requisite courses	0-99	Result: Pass or Fail No Credits is assigned Purpose: Bridge the Knowledge Gap
Foundation Courses	100-199	Pre-requisite for major subject Purpose: 1) Help students to identify their interested subject or discipline 2) Equip students with foundational concepts, theories, models, principles, methods, procedures
Intermediate Subject Specific	200-299	Pre-requisite for advance level major subject Include both courses to be taken as minor or major
Higher level courses	300-399	Pre-requisite for majoring in disciplinary / interdisciplinary courses
Advance Courses	400-499	Courses with practicum, research projects, dissertation, internship, seminars-based courses, research methodology, software training
1 st Year PG Courses	500-599	Courses included in 1 st Year PG programme
2 nd Year Courses	600-699	Courses included in 2 nd Year PG programme
Doctoral Programme	700-799	Courses designed for doctoral students

National Higher Education Qualification Framework

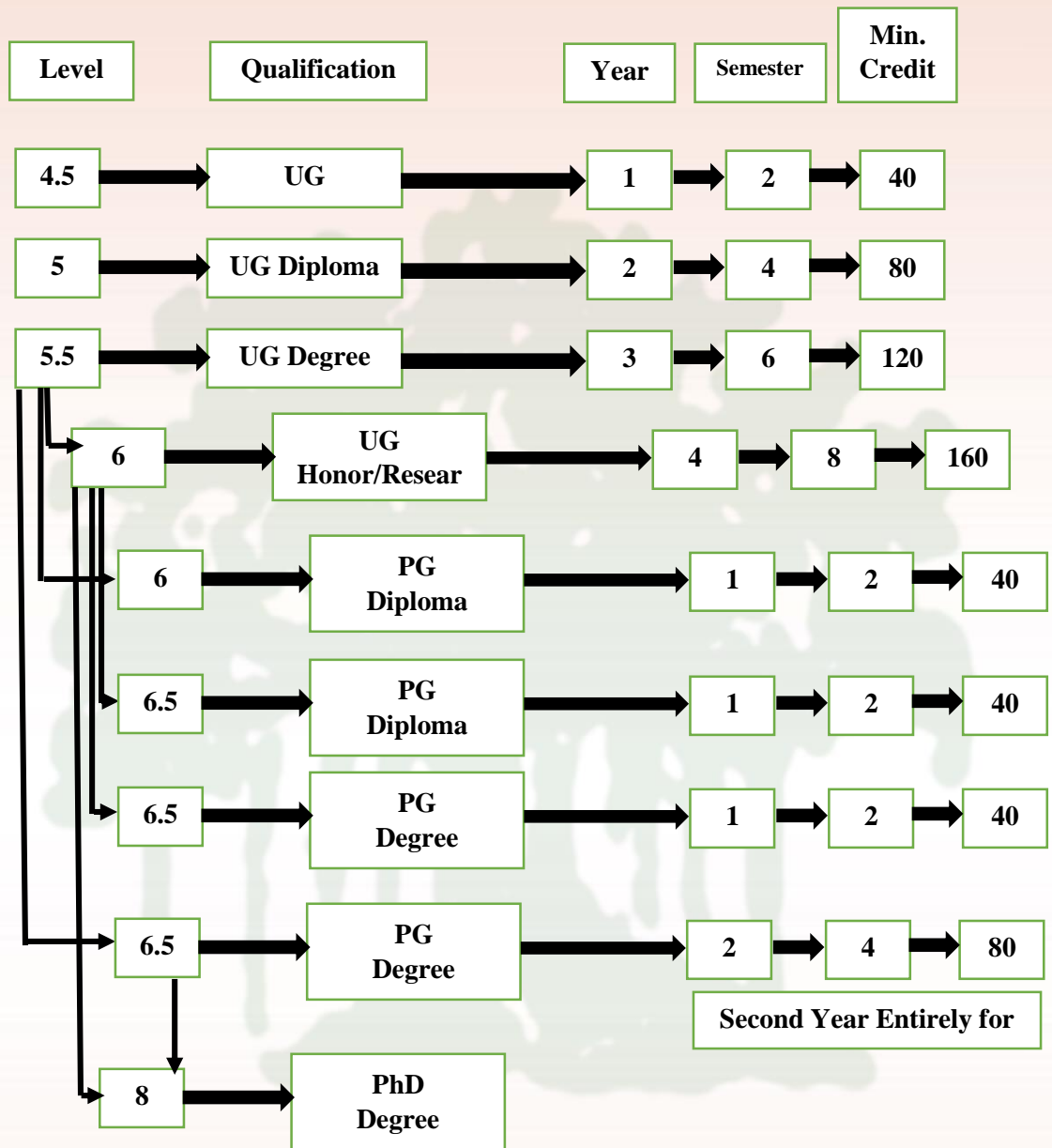


Figure 1: Diagrammatic view of progression in higher education proposed in NHEQF.

- C. Multiple entry and multiple exit:** Compared with the earlier educational policies, NEP 2020 provided provisions for entry and exit at multiple points in the academic journey for the students. As a result, the students can count their performance toward earning a certificate, diploma, or degree after completing one, two, three, or even four years of education. This provision will be helpful for those who may have to discontinue their studies due to personal, family, financial, or health reasons. In earlier educational policies, students were not recognized for their efforts put into learning if they failed to complete their degree within a specified time. Although this period may vary from university to university, it couldn't exceed five or seven years from the registration. Till the introduction of NEP 2020, there was no provision for counting, recording, storing, reusing, and transferring the credits earned by the students. This limitation was identified and tackled creatively by the NEP through the introduction of the Academic Bank of Credits. Till date, there are approximately 36 lakh students registered on the Digilocker platform. The credits earned by the students will be stored in this digital bank and can be exchanged by the students to earn a certificate, diploma, or degree after the completion of one, two, or three years of education. In addition, the Academic Bank of Credits will allow students to continue their studies at any university or college registered on the ABC Portal. This will help the students continue their studies even after relocation to any part of the country. During their course of study, students can shift to any institute that will meet their educational and academic needs. This will help to reduce the dropout rate among female students due to marriage, pregnancy, and relocation resulting from the marriage or transfer of their partner.
- D. Incorporation of courses on the Indian Knowledge System:** The policy emphasizes the need to promote Indian knowledge of philosophy, architecture, geography, mining, shipbuilding, military science, weaponry, poetry, grammar, economics, politics, mathematics, astronomy, biology, and veterinary science as part of the regular curriculum to protect ancient wisdom and promote economic security and national pride.
- E. Formalization of multidisciplinary education:** Before the introduction of NEP 2020, there was a hard separation among the streams. Students were not able to study the subjects of their interest just because they were part of other streams than their own. Although few institutes have attempted to fill this gap by offering non-credited, short-duration courses to fulfill the academic needs of students, their performance remains uncounted by other academic institutes

and employers. NEP 2020 not only recognized but also formalized multidisciplinary education. The curriculum framework proposes to include minor courses from different schools, disciplines, and streams.

F. Integration of vocational courses: Prior to NEP 2020, the focus of academic institutes offering transitional courses was on providing subject-specific knowledge and skills that had less relevance with knowledge and skills required at the workplace. Vocational skills were treated as secondary skills to theory-based knowledge. Thus, employment generation through traditional courses was very limited. Institutes made efforts to strengthen transferable vocational and professional skills by conducting short-duration courses and organizing workshops and training programs in collaboration with industries. But due to the voluntary nature of these activities, the participation of students was limited, and only certain students could take part in such activities. Further, the short duration of these activities limited the exposure students could get to related skills enhancing employment. Thus, the policymaker realized the need for developing sustainable employable skills through the incorporation of vocational courses as a part of a regular program.

G. Formalization of courses on value education and professional ethics: Before NEP 2020, value inculcation was done through various co-curricular and extra-curricular activities like the celebration of birth anniversaries of national leaders, social reforms, guest lectures, workshops, and Compiegne to ensure observable changes in values held by the students. However, it is proposed to include formal courses promoting moral values and professional ethics among students as a part of their program.

H. Promotion of Multilingualism: Through the NIPUN Bharat project, the government had taken the initiative to map the languages spoken by the teachers and students. The purpose of this initiative is to provide education in the mother tongue or regional languages. This is expected to develop self-esteem, self-confidence, and transferable knowledge and skills among learners. The policy proposes to offer an MBBS program in Hindi and engineering courses in six different languages. Efforts will be made to translate the technical books into six different regional languages, namely Marathi, Hindi, Tamil, Telugu, Kannada, and Bengali. In addition, 1052 SWAYAM courses are made available in more than one language. For the promotion of regional languages in teaching, the policy proposes to increase the intake of the professional program up to 50% sanctioned intake.

- I. Promotion of Equal and Inclusive Education:** In old education policies, different schemes were implemented under equal opportunity cells and ICT-enabled education to increase the accessibility and inclusiveness of education. In NEP 2020, the promotion of equality and inclusiveness in education will be technology-driven. It proposes to develop e-content through the DIKSHA Platform, audiobooks for visually impaired students, and an Indian sign language dictionary of 10,000 words in text, audio, and video. Further, the policy emphasizes that the new programs and courses can be offered on the SWAYAM platform for Divyanggan students.
- J. Promotion of Dual Degree:** NEP 2020 proposed to promote dual degree programs in collaboration with foreign universities for the internationalization of education and to speed the process of education for gifted students.
- K. Recognition of Prior Learning:** Through the National Credit Framework (NCrF), NEP 2020 proposes to provide recognition to the informal learning acquired by the individual from work experience, family inheritance, and other methods. The provision of "prior learning" expects that informal learning can be credited through well-established outcome-based assessment to promote mobility in higher education.
- L. Creditisation of Experiential Learning:** The National Credit Framework (NCrF) proposes to formalize the experiential learning attained by an individual enrolled in the particular program through participation in professional development programs, subject to assessment.

Credit Distribution: 4-year undergraduate programme (FYUP)

Level of Course/s	Type of Course/s	Credits	Features and Goals
Major	Department/ Subject Specific Cores (DSCs):	64-76	B.A. (Honors /Research in Psychology)
	School Specific Cores (SSC):		B.A. Social Sciences/B.Sc in Life Sciences Comprise core/major courses from more than one but unrelated subjects In fourth year, courses will belong to only one specific subject

	Faculty/ Discipline Specific Cores (FSC)		Choice of two different subjects as Core for first three years e.g., Psychology and English, Psychology and Economics, etc. In fourth year – courses will belong to only one specific subject
Minor Focus on multidisciplinary education 6-8 courses of particular subject Weightage: 2 to 4 credits each Criteria: (1) Major from DSC: minor from unrelated faculty/discipline (2) Major from SSC/FSC: minor from other faculty/ discipline	Department/Subject Specific Electives (DSEs):	22-28	To be identified by the department (Psychology)
	School Specific Electives (SSE):		To be identified by the related discipline – (i) social science [Psychology, History, Economics, Marathi, Hindi, English], (ii) Life sciences [Botany, Zoology, Biotechnology, Microbiology, Biophysics] In fourth year, the student has to select DSE from only one subject out of 3 subject combinations
	Faculty/ Discipline Specific Electives (FSE)		To be identified from two different subject (Psychology, History) In fourth year, the student has to select DSE from only one subject out of 2 subject combinations
Skill Based / Vocational Studies		12-18 credits	Interdisciplinary / multidisciplinary in nature Goals:

			<p>Providing hand-on-training, competencies, proficiency and skills to enhance employability</p> <p>Advertising, communicative English, Electronic Equipment Management; mobile, TV, Computer maintenance, Analytical instrumentation operations, entrepreneurship development, office management, sales promotion and management, Tax procedure and Practice, Tourism and Travel Management, Solar system maintenance, Banking Finance and Insurance services, web designing and animation, media and entertainment.</p>
Generic Elective / Open Electives		14 – credits	<p>Goal: To provide interdisciplinary / multidisciplinary education</p> <p>Students can choose electives offered by other department/faculties</p>
AEC, IKS, EVLSC	Ability Enhancement Course	12-14 credits	To be offered in first two years
	Indian Knowledge System		<p>To be offered in first two years</p> <p>Goal: protecting ancient wisdom, economic security, and national pride</p>

		<p>Philosophy, architect, geography, mining, shipbuilding, military science, weaponry, poetry, grammar, economics, politics, mathematics, astronomy, biology and veterinary science</p> <p>Credit load: 2</p>
	<p>Environmental Studies</p>	<p>To be offered in first two years</p> <p>Goal: promote knowledge of ecosystem, preservation based on Sustainable Development Goals (SDG).</p> <p>Components – Bio diversity, sensitization, waste management, pollution, climate change, management of biological resources, conservation of forests and wildlife.</p> <p>Credit load: 2-4</p>
	<p>Language</p>	<p>Language teaching should be experiential to develop ability to converse and interact in addition to teaching literature, vocabulary, and grammar.</p> <p>Marathi/Mother tongue to be used as a medium of instruction to increase GER and employment opportunities</p> <p>Credit load: English plus regional language</p>

	Value Education	<p>Marathi/Hindi (4-6 credits each)</p> <p>Offered by different faculties/disciplines</p> <p>Goal – promoting critical thinking and scientific temperament through embedding ethical, cultural and constitutional values</p> <p>Components: Ethical, Constitutional and universal human values – truth, righteous conduct, peace, love, non-violence, scientific temper, citizenship values, life - skills, participant in community services, global citizenship education</p> <p>Credit load: 2</p>
	Soft Skills	<p>Goal – promoting employability and self-esteem</p> <p>Components – team work, time management, flexibility, problem solving, interpersonal skills, communication and presentation skills, decision making, leadership abilities, professional skills, universal values.</p> <p>Credit load: 2</p>
	Constitution, Gender, Diversity and Inclusion	<p>Credit load: 2</p>

<p>Field Project / Internship / Apprenticeship/ Community Engagement and Services Research Projects/ Dissertation</p>	<p>Field Project / Community Engagement and Services</p>	<p>24-32 credits</p>	<p>Provide opportunities for developmental related issues in rural and urban areas</p> <p>Components – understanding the policies, regulations, organizational structure and process, programme</p> <p>4-6 week of summer work/ field projects in university campus/neighbouring communities in collaboration with NGOs.</p> <p>Regional Case study course/social entrepreneurship course – 2 credits (30 hours – 15 hours on field)</p> <p>Compulsory for all students</p> <p>Related to DSC</p> <p>For 4th years with Honour</p> <p>Credit load: 6 (from semester V to VIII)</p>
	<p>Internship and Apprenticeship</p>		<p>Linking education with requirement of world of work</p> <p>Considered to be most effective way of developing skilled manpower</p> <p>Provide industry led, practice oriented and outcome-based learning</p> <p>Forming linkage with industry</p>

			4-6 week of structured summer internship in other research institute / industry / university approved research centre/ university research centre Credit load: 4-6 credits per year
	Research project/ Dissertation	20 – 24 credits	Related to major subject only for 4 th years with Research degree

NEP Provisions in the Context of FYUP:

a) Provision for Multiple Entry:

- Entry is permitted only before the beginning of odd semesters.
- Eligibility for level 4.5 will be based on passing the 12th grade exam and qualifying other criteria identified by the universities and autonomous colleges based on the guidelines prescribed by the UGC and the Government of Maharashtra.
- Entry criteria for the four-year integrated Bachelor of Education (B.Ed.) will be performance in the aptitude test or Common Entrance Test (CET) conducted by the National Testing Agency.
- Lateral entry or re-entry is permitted after a certificate, diploma, or degree program.
- Students have to complete pre-requisite courses and foundation courses if they are choosing a major subject that they have not studied earlier.
- For entry at level 6, students should have achieved a 7.5 CGPA in a three-year degree program or as decided by the academic council.
- Double graduation: only in one subject from their own discipline
- Admission to universities is through the Common University Entrance Test (CUET), conducted by the NTA. The same mechanism is proposed to be endorsed through the state CET cell.

b) Intake capacity for later entries on levels 5, 5.5, and 6:

- The policy gives freedom to the universities and autonomous colleges to decide the intake capacity of the program for levels 5, 5.5, and 6 considering the student-teacher ratio, infrastructure facilities, and support services.
- The policy proposed reserving 10% of the total intake capacity of the program for students with lateral entry.
- The intake capacity for lateral entry is expected to be flexible due to students' dropouts or failures. The available intake needs to be published by the college after approval by the academic council at least three months before the admission.
- The reservation policy framed by the state government is expected to be followed while admitting the students.

c) Promotion of Open and Distance Learning (ODL):

- ODL content will be equivalent to the highest quality in-classroom program.
- ODL is promoted to provide flexible learning opportunities.
- 40% of each semester's credits can be acquired through SWAYAM (four quadrants: e-tutorials, e-content, discussion forums, and the self-assessment process).
- Deans are authorized to approve SWAYAM courses and the NPTEL platform for credit transfer based on the recommendation of the head of the department and the chairman of the Board of Studies.

Transition Plan based on Strategic Actions:

1) Awareness and capacity-building program:

The government had encouraged the ministry of higher education and affiliated universities to promote the vision of NEP 2020 by organizing seminars, conferences, and workshops. As a part of this initiative, thousands of workshops and conferences were organized to help stakeholders understand the changes proposed by NEP 2020 and how they will be implemented step-by-step to meet its goal. These interactions with stakeholders not only helped the stakeholders to understand their roles but also to identify the upcoming challenges in the implementation of NEP 2020 and discuss the remedies for the same.

2) Credits: Digitalization and Transfer:

The government has developed a portal called ABC (Academic Bank of Credits) on the Digi Locker website to collect, store, transfer, and exchange the

academic credits earned by the students. The government is encouraging universities, HIEs, and students to register themselves on this portal. To increase the acceptance of this portal by the stakeholders, the registration and interference processes on the portal were simplified. As a result, approximately 36 lakh students have registered themselves on this portal.

3) Individualized Fee Structure:

The policy proposed an individual-specific fee structure as the course choices are expected to vary from student to student. Thus, colleges or universities are expected to fix the fees for every course offered by the college. However, the fee has to be approved by the BOD and Academic Council.

4) "Clusters of Colleges" to meet the infrastructural needs:

The NEP 2020 expects HIEs to collaborate and share their infrastructure to meet the academic needs of students. This will ensure that the students will have access to high-quality support services like library resources, playgrounds, laboratories, etc.

5) Professor of Practice:

The NEP 2020 wants to involve practicing professionals in formal education even though they do not meet the criteria for the appointment of a professorship. This decision is taken to promote transferable skills and the inculcation of professional ethics among students. As these practicing professionals will bring their field experience to the classrooms, discuss real-life examples and case studies with students, and demonstrate a higher level of professional skills and ethics, this provision is expected to facilitate students' classroom learning and promote work-related competencies.

6) Promotion of GER:

The NEP 2020 proposed the option of multiple entry and exit, multilingual education, and provided autonomy to colleges to award degrees. Through these, it is expected that the gross enrolment ratio will increase to 50% by 2035.

7) Strengthening research:

The government took an initiative to promote research culture in colleges and universities by establishing a research and development cell, providing funding for the establishment of Idea Development, Evaluation, and Application Labs (IDEA) in 49 HEIs, establishing 120 virtual labs with 1000 experiments, establishing an Institute Innovation Council in 4000 HEIs, and providing funding for interdisciplinary research.

Stakeholders' perceptions towards FYUP:

The introduction of a four-year undergraduate program in India has been a topic of discussion for many years. The four-year undergraduate program was introduced to provide students with a more comprehensive and holistic education, as well as to align India's higher education system with global standards. The proponents and supporters of the four-year undergraduate program (FYUP) emphasize the benefits of FYUP. They state that FYUP will (a) provide students with an opportunity to pursue interdisciplinary and multidisciplinary studies, allowing them to explore different fields of study and develop a well-rounded skill set; as a result, they will be better equipped to tackle real-world problems; (b) the program will provide students with exposure to practical training and industry experience, preparing them for the workforce; and (c) it will allow students to pursue research and innovation, which can lead to discoveries and developments in various fields.

However, critics of the FYUP argue that the program is too long and unnecessary. They believe that the traditional three-year program is sufficient and that the additional year of study is a waste of time and resources. It will not only increase the financial burden placed on students and their families but also delay their entry into the workforce. This is especially concerning for students who are in urgent need of financial stability. Few other stakeholders feel that the four-year undergraduate program places too much emphasis on research and innovation and not enough on practical training and skill-building. They believe that a more practical approach to education is necessary to prepare them for the demands of the workforce.

Despite these concerns, it is clear that there is a growing acceptance of the four-year undergraduate program among the stakeholders. Many students will be drawn to the program's interdisciplinary approach and the opportunities it provides for personal and professional growth. Furthermore, the program's emphasis on research and innovation is particularly attractive to students who aspire to careers in science, technology, engineering, and mathematics.

Problems:

The success of any policy depends on public participation, which is influenced by the people's views towards the policy. The stakeholders, due to their unique characteristics, may differ in their perceptions of the features of NEP 2020. Although the overall perception of the stakeholder community towards NEP 2020 is positive, they do express concerns about certain features of NEP 2020 and their implementation.

- a. What will be the role of private education in the education system?
- b. How will the requirement for human resources be met?
- c. How much of a financial burden will NEP 2020 put on students and their parents?
- d. Does the digital divide and the accessibility of technology to students from economically weaker sections of society affect the potential of technology to enhance learning?
- e. Does too much reliance on technology lead to a loss of human interaction and social skills?
- f. Will the government allocate sufficient resources to ensure its successful implementation?

In addition to these concerns, the policymakers required to address the ten problems related to implementation of NEP 2020.

- 1) NEP 2020 defined different levels of learning from level 4.5 to 8 i.e., from first-year undergraduate to PhD. But the programme covered at levels 7 and 7.5 is not included in the policy. Earlier it was supposed to be a two-year M.Phil programme which was discontinued by the UGC as a part of NEP 2020. Thus, what outcomes are expected to be achieved by the students at 7 and 7.5 is unclear.
- 2) The policy promotes faster academic growth from level 6 to 8 i.e., the fourth year of under graduation with research to PhD for students having high CGPA and qualifying aptitude or entrance test. This provision assumes that students will acquire a higher level of research competencies with one year of exposure only. This assumption needs to be tested before implementing it on a large scale as it may lead to poor-quality research just for the sake of acquiring the highest degree in the field.
- 3) Double graduation is allowed only in subjects from the same discipline which limits the scope for multidisciplinary studies.

- 4) As a part of the Indian Knowledge System, the policy only promotes knowledge from the Hindu religion. The knowledge from Buddha, Jain, and Sikh religions and Suffi philosophy is not considered to be the part of Indian Knowledge System due to which the policy may receive criticism from academic and religious experts belonging to a different faith.
- 5) Formalization of courses focus on vocational skills, soft skills, moral values and professional ethics may results in an increased workload and the effective execution may require the appointment of new staff which will be challenging considering the limited allotment of budget to higher education.
- 6) There will be an increased number of course combinations resulting from the choices opted by the students. Thus, planning the day-to-day teaching will be a challenge for the institute with limited infrastructural and human resources. Further, the assessment process may become cumbersome and time-consuming for affiliating universities due to a large number of course combinations opted for by the students from affiliated colleges.
- 7) Multiple entries and multiple exit options will be very effective from students' perspective, but it comes with a risk of students dropping out, of the institutions located in rural and tribal areas, due to migration to other institutes/universities.
- 8) Further, the policy has not made it clear whether students enrolled for the specific programme in affiliated colleges will be eligible for lateral entry in a similar programme offered by the universities.
- 9) The policy failed to through light on how the government will approve the changing workload and responsibilities of the teachers due to NEP 2020.
- 10) The government is reducing the budget for higher education on one side and on the other side it is planning to provide financial autonomy to the HEIs to meet their needs. This in long run will increase the cost of higher education to be borne by the students or their parents. This will not only increase the risk of dropouts but also may increase the average years.

Summary:

The NEP 2020 had brought visible changes in the undergraduate education through FYUP. This change will increase the speed of progress of students in higher education; the students will be able to enroll for PhD programme immediately after fourth year of graduation. FYUP will help students acquire knowledge from different disciplines and pursue their studies as per their convenience. They will get recognition for the vocational skills, moral values, and professional ethics they acquire as part of the program. They will receive credits for their prior and experiential learning,

subjected to assessment. However, the NEP 2020 left a gap in expected learning outcomes for levels 7 and 7.5 and gave importance to knowledge sources from one religion, ignoring the richness of knowledge bases from other religions. The provision of multiple entry and multiple exit points may increase the risk of dropouts in institutions located in rural and tribal areas due to migration to other institutes and universities. Further, the FYUP may require financial support from the government to realize its goals.

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EVOLUTION OF INDIAN EDUCATION FROM ANCIENT TO MODERN TIMES

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Abstract:

India has developed and implemented a unique educational system over the years, aiding in the development of the country. There are numerous and significant benefits to education in life. The educational system's structure, which includes everything from courses and curriculum to Pedagogical practices are established by education policy. The emphasis of educational endeavors in India has sporadically shifted in line with the country's altering socioeconomic necessities. Since ancient times, the education system in India has undergone tremendous and significant changes till date. This chapter focuses on the evolution of the education system and policies in India since ancient time. It also focuses on the curricular aspects and subjects during the respective era.

Introduction:

India has designed and adopted a distinctive education system in recent decades that helps to sustain the history, values, and traditions of our country. The value of education in life is enormous and multifaceted. The skills, methods, information, and knowledge necessary to recognize, comprehend, and appreciate the responsibilities people have to their communities, families, and country are acquired via education. Hence, education forms the basis of the socio-economic growth of the nation. Governments all throughout the world focus on developing and implementing educational systems and policies for the betterment of society and the development of their countries. Educational systems in India have been transformed from period to period depending upon the rulers requirements. The policies have been transformed with the advent of technology and modern times to make the educational system more reliable to compete with global requirements. This chapter is an attempt to analyze the nature and transformation of educational systems and policies since ancient times. The chapter focuses on the transformation of educational systems and policies through an understanding of educational systems from the ancient, medieval, British, and post-independence time periods.

Educational System during Ancient Times:

Since the dawn of civilization, India has had educational institutions. Though there are no authentic literary sources about the presence of educational policies during ancient times, there is a need to understand the ancient education system to understand the current scenario of educational policies.

The Rig Veda, the Aranyakas, the Upanishads, the Epics, and the Puranas are some of the notable literary texts that provide a sufficient understanding of the policies that regulated the ancient Indian educational system. The ancient Indian education system was divided into two parts: Vedic and Buddhist, with Sanskrit and Pali as the medium of communication. The first important attempt at creating an education policy in India was made by the Aryans who invaded India in II B.C. After the Vedic system, the powerful kings promoted education in their societies. Another education system was laid called Brahmanism, which focused on reinforcing the hierarchy system among the society. where Buddhism focused on equality. In ancient times, education focused on imparting ethics and discipline. Four Vedas, six Vedangas, the Upanishads, darshanas, puranas, and Tarka Shastra make up the course material. Shiksha, Chhandas, Vyakarana, Nirukta, Jyotisha, and Kalpawh were the six vedangas, whilst Nyaya, Baiseshika, Yoga, Vedanta, Sankhya, and Mimasa were the darshanas. During that period, there was also a greater emphasis placed on language, geometry, and algebra. Pitakas, Abhidharma, and sutras make up the Buddhist system's curriculum. In addition, the Vedas were also given priority. In those times, gurukuls, ashrams, temples, and viharas were the hometowns of teachers, where students were admitted from various regions to complete their education. For higher education, institutions such as Takshashila and Nalanda were the famous centers of learning, also known as scholarships. Although the ancient education system had several advantages, such as holistic development of students and emphasis on practical knowledge, it also had some disadvantages. Some of the disadvantages include caste discrimination and no admission for women in gurukuls.

Education System during the Medieval Period

The ancient educational system underwent significant alteration during the medieval era. Muslim rulers created a lasting dominion in India and introduced a new educational system. The most notable alteration was the Islamic form of education, which was distinct from the Buddhist and Brahmanic education systems. The Arabs and Turks brought new cultures, customs, and institutions to India. During this period, a large number of libraries and schools were introduced where the education system primarily focused on the Islamic and Mughal systems. Hence, the main aim was to spread Islamic culture in India. At a "Madrassa," any Muslim may receive an education,

and Moulvis taught all higher education in Arabic. Muslim educational institutions were divided into "Maktaba," a basic school sometimes conducted in private homes or adjacent to a mosque, and "Madrasa," higher education institutes typically managed in conjunction with monasteries. Throughout the Middle Ages, there were two different forms of education: secular and religious. Secular education focused on calligraphy, grammar, "paharas", languages, politics, and agriculture, while religious education focused on the Quran and Islamic histories.

Education System during the British Period:

Prior to the development of modern education, only a relatively small percentage of the population had access to learning possibilities. A significant change in educational systems was brought about by the British Empire. The British invaded India, and a modern education system was introduced during their empire. They did make an attempt to promote education, but frequently it was driven by a desire to see Christianity expand among Indian tribes. Inculcating principles like equality, secularism, education for everyone, and environmental consciousness in students was the goal of modern education. The curriculum consists of the three categories of elementary, secondary, and graduation. The first through tenth grades make up primary education, the eleventh and twelfth grades make up secondary school, and graduates have the option of choosing a subject of study, such as computer science, electrical engineering, civil engineering, etc. Nonetheless, pupils also have options for choosing their career path following secondary education. Students are taught courses including history, geography, arithmetic, science, Hindi, and Marathi in elementary school. States could use different languages. At the beginning, pupils were taught word construction, poetry recitation, alphabets, etc. The Charter Act of 1813 was the first noted step towards modern education in the country by the British. There were various policies and commissions laid down under the British crown, such as the Hunter Commission (1882), Raleigh Commission (1902), Indian Universities Act (1904), Government Resolution on Education Policy (1913), Saddler University Commission (1917), Hartog Committee (1929), Wardha Scheme of Basic Education by the Indian National Congress (Inc.) (1937), and Sergeant Plan of Education by the Central Advisory Board of Education (1944).

Education during Post-Independence:

Post-independence, it was imminent that India's education system was about to undergo a major restructuring. To address the educational issues and make recommendations for comprehensive policies to enhance the Indian educational system, the government formed various education commissions. India adopted its constitution in 1950, and then education became the responsibility of the state as well as the central

government. A Planning Commission was appointed to prepare five-year plans with objectives to eradicate illiteracy, provide facilities for high-quality education in every district, and so on. There were two commissions, the University Education Commission and the Mudaliar Commission, setup to deal with university education and secondary education, respectively. This was followed by the Kothari Commission under the chairmanship of D. S. Kothari.

New education policies strive to create equity in education and the right to education for all children, regardless of socioeconomic class, whereas previously education in India was primarily reserved for the higher-caste children. It inculcated modernization, national unity, and literacy education, which were the key themes based on Nehru's vision and expressing most of his important concepts.

National Policy on Education after Independence:

The National Policy on Education (NPE), which Rajiv Gandhi unveiled in 1986, was a revolutionary approach to education that was meant to prepare India for the twenty-first century. The statement that education in India is currently at a crossroads was stressed in the policy. The current rate and character of progress, as well as regular linear expansion, cannot fulfill the demands of the circumstance. The creation of an educational system that assisted individuals in improving both their knowledge and academic skills was suggested in the 1979 draft of the National Policy on Education. In order for pupils to develop a positive personality and become deserving citizens, it also advocated for raising students' knowledge of morality and ethics. The National Policy on Education was launched by the Indian government in 1986. Its primary goal was to give education to all societal segments, with a concentration on women, scheduled castes, scheduled tribes, other underprivileged groups, and other backward classes who had been denied access to school for decades. The National Strategy on Education (1986) placed emphasis on providing fellowships for the underprivileged, providing adult education, hiring instructors from oppressed groups, as well as creating new schools and universities in order to achieve these goals. "Operation Blackboard" was launched to improve primary schools under NPE 1986. A teacher education scheme was launched in 1987 to create sound institutional infrastructure for training teachers. Further, in the 1990s, the establishment of the Central Advisory Board of Education was overseen by N. Janadhana Reddy. This board thought about changing various aspects of NPE. The National Programme of Action of 1992 was the name given to the committee's report, which was submitted in 1992. NPE 1992 focused on national integration. District Primary Education Program was a major initiative taken during 1994 for universalization of primary education. Sarva Shiksha Abhiyan, a movement for universal education, was launched in 2001. In 2009, the Right

to Education Act was envisaged, which is the first legislation in the world to provide the government with the responsibility of ensuring enrollment, attendance, and completion of education.

New National Education Policy (NEP) 2020:

It was claimed that the objectives of the 1968 policy had largely been accomplished: most states had adopted a uniform educational framework, and more than 90% of the nation's rural residents lived within one kilometer of a school. The emphasis on science and math had also been successful. To address issues with access and quality, however, the educational system needed more monetary and organizational assistance. Hence, the Union Cabinet of India approved the National Education Policy of India 2020 on July 29, 2020. In both rural and urban areas of India, NEP 2020 provides a complete framework for education from elementary to higher education, as well as vocational training. This policy has replaced the "10+2" structure with the "5+3+3+4" model. This will help optimize learning based on the cognitive abilities of students. This model includes the Foundation Stage, the Preparatory Stage, the Middle Stage, and the Secondary Stage. This model ensures universal access at all levels of school education.

Conclusion:

Ever since India gained its independence, education policy has had a significant impact on the growth of its educational system. Education policies, which represent the perspectives of people in authority on education, have a significant impact on the objectives and plans of the current educational system. Education policy establishes the framework within which an educational system takes shape, encompassing everything from courses to curriculum to pedagogical procedures. In India, the focus of educational initiatives has occasionally changed in accordance with the nation's shifting socioeconomic requirements.

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THE COMPARATIVE STUDY OF NATIONAL EDUCATION POLICY 2020 IN THE CONTEXT OF HIGHER EDUCATION IN INDIA

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Abstract:

Education is one of the most important aspects of human life. It is one of the fundamental rights that most nations across the world have granted to their citizens. It is said that change is the only thing constant in the world. The education sector is not an exception. After independence, India implemented its first education policy in 1968. The second education policy was formulated in 1986. These two education policies proved to be milestones in the educational development of India. The new education policy 2020 has brought about dynamic and drastic changes in the education system of India. It aims to address the developmental imperatives of India. The policy also focuses on revising and revamping the various traditional features of the Indian education system. The new education policy will enhance the perspectives of teachers to re-establish the knowledge structure at different levels. The policy will engage the students of all the faculties to gain knowledge through the advanced means of technology. The policy will not only reduce the burden of forced education but also create excitement about gaining knowledge of different subjects, irrespective of their streams. The overall target of the new education policy 2020 will be to ensure social justice and equality, economic growth, leadership at the global level, scientific advancement, cultural preservation, and national integration. The present paper will attempt to analyze the various features of the new education policy 2020 in order to understand its future prospects.

Key Words: Higher Education, Gross Enrollment Ratio, Innovations, Foreign Universities, Regulation of Higher Education.

Introduction:

Presently, India has about 845 universities and approximately 40,000 higher education institutions, which reflect the overall high fragmentation and many small higher education institutes that are affiliated with the universities. ¹ It has been found that about 35% of small institutions implement the single program, against the expected reform to a multidisciplinary type of higher education. It has also been noted

that over 22% of the colleges have an annual enrollment of less than 100 students, and only 6% of colleges have an annual enrollment of more than 3,000 students. There are many reasons for the fragmentation of the higher education system in India. It is supposed that India will be the third largest economy by 2037, with an estimated GDP of ten trillion dollars. The Indian economy will be driven by knowledge resources and not by the natural resources of the country. In order to improve the quality of the Indian education sector, the present government has introduced a comprehensive national education policy for 2020. The national education policy 2020 envisions an education system that contributes directly to transforming our nation sustainably into an equitable and vibrant knowledge society. It aims to provide high quality education to all sections of society. The first national education policy was announced in 1968, and the second national education policy was in 1986. The third education policy is more dynamic and innovative.

Objectives of the Study:

- To highlight and analyze the NEP 2020 in the higher education system.
- To elaborate on the innovations of NEP 2020 in the higher education institutes in India.
- To study comparatively the provisions of the national education policies of 1986 and 2020.
- To discuss the merits of higher education on the basis of the norms of NEP 2020.

Research Methodology:

The methodology consists of a conceptual discussion to highlight the crucial aspects of the national educational policy 2020 and its framework, on the basis of its comparison with the education policy of 1986. In order to identify the innovations, analytical techniques have been used in the present research study.

Comparison between the National Education Policies of 1986 and 2020:

The national education policy of 1986 was the second innovation in the Indian education system. It modernized the education sector with a special focus on information and communication technology. The emphasis was on teachers' education, early childhood care, and women's empowerment. It introduced the concept of autonomy for universities and colleges in order to improve the quality of educational services. However, the policy could not improve the quality of education in terms of employability skills or the generation of research approaches in terms of patents and scholarly publications. In terms of numbers, the expected outputs were lower.

Therefore, in order to compensate for the previous lacunae, the NEP of 2020 has come up with a liberal education plan to support multidisciplinary and cross-disciplinary education and research at the undergraduate and postgraduate levels. The following table will elaborate on the features of the national education policies of 1986 and 2020.²

Comparison between National Education Policy 1986 and 2020: Table: 1

	National Education Policy 1986	New Education Policy 2020
1	The entrance exam is important for all undergraduate and postgraduate admissions at the college level or state level, except for NITs and medical colleges.	The NTA (National Testing Agency) will conduct entrance exams for all undergraduate and postgraduate admissions to public HEIs at the national level.
2	There are three to four years of undergraduate programs in many streams.	There shall be undergraduate programs of four years with a provision to exit after one year with a diploma, after two years with an advanced diploma, after three years with a pass degree, and after four years with a project based degree.
3	There are many of the colleges in HEIs that are affiliated with state universities and have no autonomy in curriculum and evaluation.	All HEIs, including colleges, shall be autonomous. There shall be no affiliated colleges to state universities and autonomy in deciding curriculum and evaluation.
4	The expected student-faculty ratio in the higher education system is 20:1.	The expected student-faculty ratio in the higher education system will be 30:1.
5	As per the norms of NEP 1986, the students have complete freedom to choose subjects across their area of study.	In the new education policy, students shall have the freedom to choose subjects outside and across their area of study.
6	The M.Phil. degree is offered.	The M.Phil. degree is discontinued.
7	In order to become an assistant professor in HEIs, passing the NET or SLET along with the respective master's degrees is mandatory.	The Ph.D. degree will be compulsory, along with passing the NET or SLET, to become an assistant professor in any of the three types of HEIs.

8	The financial support of research through UGC and other agencies is mainly for universities rather than colleges.	The financial support through the National Research Foundation and any other agencies will be equally distributed to all three of the five types of HEIs.
9	The accreditation of HEIs is compulsory in order to avail funds and government facilities.	The accreditation will be mandatory for functioning and offering the degree. Compulsory accreditation is required once every five years for continuous operation.
10	Four years of bachelor degree holders are not eligible for direct admission to the Ph.D. program unless they acquire a master's degree.	Four years of bachelor degree holders with proven research performance during the fourth year can directly admit to the Ph.D. program without a master's degree in both types of HEIs.
11	Both single-discipline and multi-discipline colleges are promoted.	Only multidisciplinary colleges and universities are promoted. All single discipline colleges have to convert themselves into autonomous multidisciplinary colleges or will be closed and converted into monuments or public libraries.
12	No foreign universities are allowed to function directly in India.	About 100 top ranked foreign universities will be allowed to function in India to compete with Indian universities.
13	There are no systematic and authentic funding agencies for university and college research.	The National Research Foundation (NRF) will be formed to fund competitive and innovative research proposals of all types and across all disciplines.

Source: www.mhrd.gov.in

Highlights of National Education Policy 2020:

- 1) HE monitoring and controlling institutions like UGC, AICTE, MCI, DCI, INC, etc. will be merged with the Higher Education Commission of India (HECI) as a single regulator for HEI.

- 2) The current accreditation institutions like NAAC and NAB will be replaced by a robust National Accreditation Council (NAC).
- 3) Every existing college will either develop into a degree-granting autonomous college or migrate into a constituent college of the university and become fully a part of the university.
- 4) All HEIs will focus on research and innovation by setting up start-up incubation centres, technology development centres, centres in frontier areas of research, centres for industry-academia linkage, and interdisciplinary research centres, including humanities and social sciences research.³
- 5) Encouragement for online distance learning (ODL) courses as a part of degree programs to include the credit system
- 6) Under-Graduation Education: It will be of either a three- or four-year duration, with exit options including a certificate after passing the first year, a diploma after passing the second year, or a bachelor's degree after passing the third year. The four-year undergraduate degree program will be preferred, with majors, minors, and research projects.
- 7) Post-Graduation Education: The Master's Degree—a one-year degree for four-year bachelor degree students, a two-year degree for three-year bachelor degree students, and an integrated five-year degree with a focus on high-quality research in the final year. The master's degree will consist of a strong research component to strengthen competence in the professional area and prepare students for a research degree.
- 8) Research Stage: It will consist of quality research leading to a Ph.D. in any core subject, multidisciplinary subject, or interdisciplinary subject for a minimum period of three to four years for full-time and part-time study, respectively. During their Ph.D., they should undergo 8-credit coursework in teaching, education, or pedagogy related to their chosen Ph.D. subject. The MPhil program has been discontinued.
- 9) Lifelong Learning: The policy focuses on lifelong learning and research to avoid human beings becoming obsolete in society in terms of knowledge, skills, and experience needed to lead a comfortable life.
- 10) A Higher Education Commission will be set up by merging the institutes such as UGC, AICTE, MCI, INC, etc. to monitor and regulate the functions of these educational units.

Innovation in the Higher Education System:

- 1) The top 100 Indian universities from different states shall be encouraged to provide education in foreign countries.
- 2) The renowned 100 foreign universities shall be permitted to establish their centres to provide education in India.
- 3) The students from UG to PG shall be informed to have SWAYAM online at least two courses per semester.
- 4) A Board of Governors with highly qualified, competent and experienced will be set up to focus on effective and merit-based appointments in education sector. The Board of Governors will be accountable to stakeholders for transparency at various stages in education.⁴
- 5) Competency based credit system will be adopted replacing the current Credit based system.
- 6) As per changing pattern of human resources, the focus will be on building digital infrastructure, digital content that can fulfil the technology generation expectations.
- 7) Artificial Intelligence Research Centers shall be set up with the financial support of National Research Fellowship.
- 8) National Higher Educational Regulatory Authority will be set up to deal with the issues of teaching and non-teaching departments of higher education.
- 9) The current investment in research and innovation in India is 0.69% which will be increased and every year the budgetary allocation will be provided for research and innovation.⁵
- 10) The annual expenditure on education in India will be increased from 4% to 6% of GDP.

Merits of National Education Policy 2020:

- 1) **Student Oriented Model:** The present model of education is based on teacher centric method. The teacher decides curriculum and evolution. Now students have right to decide to their subjects and they can appear for competency-based evolution in their own pace.
- 2) **Competency based Continuous Evolution System:** The present Credit based Evolution System will be replaced in order to evaluate skill sets of students along with knowledge and experiences. This will lead students to

identify challenges and converting them into opportunities to deal with socio-economic issues in personal and public life.

- 3) **Research and Innovation Oriented:** The creation of critical and analytical thinking of students, right from the first years of higher education has unique importance. The students should go beyond their traditional mindset to do research and innovation in their respective areas of interest. The NEP 2020 will engage the students in research with their foundation in post-graduation stage. Therefore; the M.Phil degree has been discontinued. The financial aid will also be provided to students for effective and innovative research for society.
- 4) **The Productivity of Faculty based on Research:** The faculties working in different department should be the role models for their research students through doing further research in their subjects. This will boost the energy and confidence of research students. The faculties shall also keep them engage in the advanced research for overall growth of education sector.
- 5) **Autonomy at Different Stages:** In higher education, autonomy is very crucial. The autonomy provided to HEIs will be in terms of their courses, curriculum, examinations, and evolution. The step will bring industry-oriented educational changes and employment opportunities will be created. Industry-driven education is essential for a country like India.

Conclusion:

The new education policy has documented crucial improvements in the field of education. Generally, it takes decades to see the results of any educational policy in the world as it affects the overall aspect of civil life. The current education policy is the third in sequence. It will replace the policy of 1986 with many changes to the education system. Under NEP 2020, the top universities across the world will be able to start campuses in the country. In that respect, there will be an extensive focus on reshaping the curriculum. Therefore, the implementation of this policy will have an impact on the Indian education system. With NEP 2020, it is expected to revolutionize the education scenario in the coming future, and this will certainly push India's claim towards becoming a superpower in the future.

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MODERNIZATION OF PREVIOUS EDUCATION POLICY INTO NEW EDUCATION POLICY 2022

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Abstract:

Education is a world-wide fundamental process for attaining the human potential, developing the future youth, and acting as an important factor from the point of view of national development. To establish equity around the globe, qualitative education is the actual key through which we can make changes to economic growth, social justice, scientific approach, national integration, cultural preservation, and traditional preservation. India leads to the highest accent in the future for the youth, and it's our responsibility to provide qualitative education to the upcoming generation to shape the future of our country. Through this new education policy, we will be able to tap into the specialized areas of interest of each student. The new education policies will try to create character, ethical and constitutional values, intellectual curiosity, scientific temper, creativity, and a spirit of service across a range of disciplines within a number of subjects.

The Fundamentals of Policy:

The fundamental aim of these policies is to analyze, encourage the new capabilities, sensitize them to ground reality in society, and also promote holistic development from both an academic and non-academic point of view.

- According to the New Education Policy, the learners have the right to select learning trajectories and programs that will definitely help them move on their own paths in life as per their talents and modes of interests;
- There are no boundaries between different streams of students as per their co-curricular or extra-curricular activities, which will definitely help to remove harmful hierarchies between different areas of learners.
- It will help to implement Multidisciplinary Integrative Science as a holistic education, including the sciences, social sciences, arts, and humanities, in order to ensure the unity and integrity of all knowledge.
- More specifically emphasized on conceptual understanding and practical knowledge than on rote learning and learning-for-exams.

- Students are encouraged to develop creativity and critical thinking skills so that they will be able to think logically and make situation-wise decisions in all aspects of their lives.
- Promoting language-oriented teaching and learning in the system
- Life-skills-oriented classes will focus on communication, cooperation, teamwork, and resilience.
- Regular formative assessment is implemented rather than summative assessment.
- Enhance the use of technology in the teaching and learning field, moreover, to remove language barriers, thereby purposefully enhancing the skill set (M. Hong, 2018).
- Also increase access for Divyang students so that they can also take advantage of the education policy (A. A. Kumar, 2021).
- To keep in mind that education is a concurrent subject, all should respect the local context in all curriculum, pedagogy, and policy.
- All educational levels are similar, right from early childhood care, education to school, and education to higher education.
- All the teaching faculty are the nucleus of the learning process, so their recruitment and continuous professional development must also be done in a proper manner. Positive working environments and service conditions will be there for staff.
- A 'light but tight' regulatory framework is to be fitted to ensure the integrity, transparency, and resource efficiency of the educational system.
- focusing on research and innovation to build capacity within students for outstanding education and development (Verma & Kumar, 2021);
- Regular assessment of sustained research by educational experts;
- Through the New Education Policy, access to a quality education must be considered a basic right for every child.

1. A Vision of New Education Policy

- The first and foremost vision of this policy is to provide a high-quality, compensative, sustainable education system to all, thereby making "India a global knowledge superpower".
- The curriculum and pedagogy of our institutions should develop in accordance with fundamental duties and constitutional values, with a conscious awareness of one's roles and responsibilities in a changing world and towards social relevance.
- To introduce a deep-rooted pride in being Indian, not only in thought but also in spirit, try to include intellect and deeds.
- to develop knowledgeable skills and values, and sustainable development, reflecting a truly global citizen.

2. Problems Currently Faced by the Higher Education System in India Include:

A severely fragmented higher educational ecosystem includes several problems.

- poor emphasis on the progressive cognitive skills and learning outcomes;
- As per requirement, very poor recruitment of teachers and autonomous nature of the institution;
- A merit-based career management and progression is not put forward by leaders;
- There is very poor attention paid to research-oriented skills in most universities and colleges. One reason may be the lack of competitive peer-reviewed research funding at various colleges and universities.
- Inefficiency in regularly assessing
- Many universities have low standards for undergraduate education.
- There is not any correlation in between each year of undergraduate syllabi

3. This Policy Helps to Focus on the Following Key Changes to the Current System:

- Looking forward to a multidisciplinary and high-quality education
- Moving towards the progression of faculty and institutional autonomy;
- Focuses on revising the curriculum, pedagogy, and assessment.
- Bringing up the integrity of faculty and institutional leadership positions

- Formulation of a National Research Foundation to fill the gap in research and education (Hindustan Times, 2020)
- "Light but tight" regulation authorized for higher education can change the future generation in India (Kumar K. et al., 2020);
- Enhances the access, equity, and inclusion of students in this field (A. A. Kumar, 2022).

4. Concerns Expressed Regarding NEP 2020 are Given Below:

- The report fails to explain and correlate ideas concerning contemporary global thinking like creativity and critical thinking. There is a need to provide a non-competitive as well as non-hierarchical ecosystem without any sense of fear.
- Lack of clear knowledge about government strategies regarding the public sector, such as municipal schools, state-run institutions, and Kendra Vidyalaya.
- The make a Legal education it needs to be competitive globally in equal manner throughout all over world. Able to espouse the best practices and adopt new technologies for wider access to and timely delivery of justice in the education field.
- Healthcare education is more likely to take serious which will needs to re-visualised the duration, structure, and design of the educational programmes.
- The healthcare education system must be structured so that each student gains basic knowledge about Ayurveda, Yoga, and Naturopathy (AYUSH), as well as UNANI, Siddha, and Homeopathy (UNANI), and vice versa.

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HIGHER EDUCATION AND NEP 2020

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Abstract:

Education plays a vital role in human life. Without education, human life would be like wild life. Education influences every aspect of human life like behavior, action, speech, knowledge, etc. Research on the study of the educational system in India is required. This paper is an attempt to critically evaluate the existing system and practices of the assessment and accreditation of higher education institutions (HEIs) in India. The current practices based on the structure of the educational system created thirty years ago need to be aligned with the evolving concepts of learning and education, as well as the rapidly changing technology and knowledge landscape. The growth of any nation is dependent on the educational system and its implementation in the nation. To empower any nation, the quality of HEIs should be enhanced. Our previous president, Dr. A. P. J. Abdul Kalam, viewed India as a powerful nation in 2020. He viewed this vision because in 2020, the number of youths in India would be higher than in any other nation in the world. But when we study the condition of the development of India, we come to know that India is on the list of underdeveloped nations. Taking the drawbacks of the current education system into consideration, the Indian government decided to change the education policy that has been followed for the past 34 years. This is the reason that in the year 2019, the Ministry of Human Resource Development drafted the New Education Policy and sought advice from the public.

This paper is an attempt to critically analyze the existing system and practices of the assessment and accreditation of higher education institutes (HIEs) in India. The current education system, based on principles formulated 34 years ago, needs to be aligned with the evolving concepts of learning and education, as well as the rapidly changing technology and knowledge landscape. New Education Policy 2020 is designed with an emphasis on trans-disciplinary perspectives, inquiry, critical thinking, and problem solving oriented towards the greater good of the individual and the collective, getting beyond employability. The current paper also describes the analysis of the requirements for NEP 2020 provisions and management practices at the university level. Recommendations are made for the design and implementation of NEPs at national and HEI (Higher Education Institutes) levels.

Keywords: multidisciplinary, academic credit bank (ABC), outcome-based education (OBE), HEIs

Introduction:

Change is the law of nature. Whatever it is, it doesn't remain constant forever. The Indian Education System is also no exception. NEP 2020 will bring big changes to the Indian education system, especially in HEIs. These HEIs are recommended by NEP 2020 in four categories: affiliated colleges (AFC), autonomous colleges (AUC), teaching universities, and research universities. It must be pointed out that NEP 2020 suggests moving away from the system of "affiliated colleges", so eventually "every college would develop into either an autonomous degree-granting college or a constituent college of a university" (NEP 10.4). First education policy was formulated in 1968 by the government of former Prime Minister Mrs. Indira Gandhi, and second education policy was formulated in 1986 by the Rajiv Gandhi government, in which some amendments were made by the P V Narasimha Rao government. A decision is taken after 34 years to change the education system. In 2019, a committee was formulated under the chairmanship of K.K. Kasturirangan. The Indian government granted permission for this Education policy to be formulated in the year 2020, but the problem is that this policy is still not accepted. The New Education Policy 2020 is the third policy. Our Prime Minister Narendra Modi stated about NEP 2020: "*The fundamental objectives behind the NEP are to bring education out of the limits of narrow thought processes and integrate it with the thoughts and ideas of the 21st century. We should not only prepare the degree holders but also develop responsible citizens to meet the future challenges*".

Prime Minister Narendra Modi

July 7, 2022, Varanasi

What are the aspects of NEP 2020?

The New Education Policy emphasizes enhancing the quality of higher education by promoting innovation and research. It also aims to make the Indian education system global. The new education policy also aims to make changes in the economy by making it a knowledge-based economy. The new education policy has some important characteristics that will bring big changes to HEIs. Some notable things are as given below.

1. Multidisciplinary/interdisciplinary:

The meaning of the word "**multidisciplinary**" or "**interdisciplinary**" is that there will be no divisions like arts, commerce, and science. Instead of it, there will be an elective for all students, and there will be no compulsory subject under this. The subjects of science and commerce will also be taught in colleges of arts. Students can choose any

subject of their choice. All the higher education institutes in the country, including those affiliated with agriculture and non-agriculture universities, will adopt this approach.

2. **Academic Bank of Credits (ABC):** The object of the proposal of the Academic Bank of Credits (ABC) is to study about the best practices of the institutes. Academic Bank of Credits (ABC) means the institution has to register under ABC to permit its learners to avail themselves of the benefit of multiple entries and exits during the chosen program. proposed in NEP 2020, according to which the institution has to register under ABC to permit its learners to avail themselves of the benefit of multiple entries and exits during the chosen program. The object of ABC is to promote the teachers' ability to design their own curricular and pedagogical approaches within the approved framework, including textbooks, reading material selections, assignments, and assessment, which is done through the Academic Bank of Credits.
3. **Skill development:** Our previous President, Dr. APJ Abdul Kalama, said about education, "The purpose of education is to make better human beings with skill and expertise. Enlightened human beings can be made by teachers". Taking into consideration the significance of skill development in education, NEP 2020 focused on the skill development of the faculty and students.
4. **Appropriate integration of the Indian Knowledge System:** It is our obligation to preserve our Indian language, culture, ethics, etc. Although we accept change, we cannot go completely away from the past; it remains partly in the present. T.S. Eliot says in his essay "Tradition and Individual Talent that nothing is new because every new thing has its origin in tradition. NEP 2020 gives significance to preserving Indian language and culture through online course teaching in Indian language and culture.
5. **Focus on Outcome-Based Education:** NEP 2020 emphasizes offering vocational courses through the institution. Good practices should be made through outcome-based education.
6. **Distance Education/Online Education:** The last and sixth characteristics of the NEP 2020 are distance education and online education, which encourage the institutions to offer vocational courses through the ODL mode, in which technological tools are used for teaching learning activities.

Recommendations of NEP 2020 for Higher Education Institutes:

This paper adopts the formulation of the purpose of education in NEP 2020 as empowering learners to strive towards their own wellbeing as well as that of their society, nation, humanity, and the planetary ecosystem. Such wellbeing has multiple

dimensions: physical, pragmatic, societal, emotional, intellectual, ethical, aesthetic, and spiritual.

1. **Assessment-based accreditation (binary):** assessment-based accreditation of HEIs as per NEP 2020 and assessment-based grading for their units and programs. The quality of the programs of higher education and, hence, the HEIs that host them, need to be evaluated in terms of the value of their goals, reflected in the learning outcomes they aim for, and the effectiveness and efficiency of the means they employ to achieve those goals.
2. **Higher-Order Cognition:** NEP 2020 proposes higher-order cognition that includes the capacities for self-directed independent learning, critical reading, critical thinking, rational inquiry, innovative problem solving, and clear, precise, and effective communication. This paper spells out the strands of abilities and understandings that are needed for rational inquiry as a component of general education. General education also includes other strands, such as pragmatic abilities, societal and emotional aspects, ethics, citizenship, and aesthetics.
3. **Recommendation for only accreditation, not assessment:** NEP 2020 recommended NAAC for only accreditation of the institutes. It also proposed assessment-based accreditation (binary) for the categories of HEIs, namely affiliated colleges (AFCs), autonomous colleges (AUCs), teaching universities (Tus), and research universities (RUs). This would include institutions of professional education, traditional knowledge systems, and vocational training.
4. **Preference to General Education:** NEP 2020 gives preference to general education instead of specialized education because general education aims to pay attention to all educational programs, whereas specialized education aims to pay attention to particular disciplines or professions, whether philosophy, physics, chemistry, medicine, law, engineering, etc.

Conclusion:

In short, this paper studies the recommendations of NEP 2020 for higher education and its implementation. For the implementation of the recommendations, it is necessary to develop an effective and efficient rubric for assessment, accreditation, and grading. We define assessment as the process of arriving at a judgment on the merit or value of something.

This paper also studies outcome-based assessment and accreditation (binary) for HEIs and assessment-based grading for their programs. This paper also studies the efforts that have been made by NEP 2020 to improve the quality of Indian higher

education and its expected outcomes. NAAC/NAC aims to emerge as a credible international accreditation agency in India. Finally, it can be concluded that the object of NEP 2020 is to provide high-quality higher education and achieve the goal of *Atmnirbhar Bharat* on the occasion of *Azadi ka Amrit Mahotsav*.

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NEW EDUCATION POLICY (NEP) 2020: GLOBAL EDUCATION POWER

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Abstract

The National Education Policy of 1986 was replaced by NEP 2020. It focused on the literacy and numeracy of students. According to this policy, basic learning skills such as reading and writing are first achieved by students. NEP is mainly focused on keys like enhancing education, increasing the quality of education, and improving equity. (4) The major goal of NEP is to provide quality education for students from remote, rural areas and to give them access to quality education. This policy likely focused on increasing the enrollment of girls and underprivileged groups. The 2030 Agenda for Sustainable Development Goal 4 (SDG 4) was adopted by India in 2015. It includes the 'Global Agenda for Education', which aims to achieve "Inclusive Hope for All" by 2030. To facilitate quality education and promote post-secondary learning opportunities for students. To promote hope and support studies for this lofty goal, restructuring the education system is essential for the 2030 agenda for sustainable development. (1)

Principles of New Education Policy-

The purpose of this education system is to be able to act rationally, with compassion, empathy, moral skepticism, creative imagination, and moral values. (5) Teachers should be at the centre of fundamental reforms in the education system. Because it really shapes the future of our citizens. In order to ensure that employees can do their jobs as effectively as possible, this policy covers all aspects of the organization. Also, to induct the best aspiring students into the teaching staff at all levels. Education policy should be supported. Help to re-establish yourself as the most respected and essential member of your society at all levels. (1)

In general, the basic principles that guide both the education system and independent institutions are:

1. To find out, identify, and develop the unique abilities of each student—both academic and non-academic—teachers and parents are encouraged to participate in all aspects of the

2. For a multifaceted world, by ensuring the unity and integrity of all knowledge (anthropology, sociology,
3. Development of multi-disciplinary holistic education between humanities and sports.
4. Integrity of the education system, transparency, efficiency of resources, audit, voluntary
5. To provide a 'simple but effective' framework of strategies to facilitate the medium. Autonomy with
6. Promoting ideas outside of the perishable frame of reference through sound
7. Our Indian roots, India's rich, cosmopolitan, ancient-modern culture, being respectful to the knowledge system

Early Childhood Care Education: Foundations of Study

1. ECCE focuses on flexible, multifaceted, multilevel, game-based, and craft-based
2. Basic learning includes letters, language, numbers, counting, colors, and shapes, both indoors and outdoors.
3. Games, puzzles, reasoning, problem solving, architecture, painting, other visual arts, crafts,
4. Includes talking dolls, music, and movement.
5. It has social ability and sensitivity.
6. Investment; courtesies; honesty; strength; cleanliness; teamwork; cooperation;
7. Attention has also been paid to One of the objectives of ECCE is to achieve good results in the following areas:

These are: physical fitness, functional skills, cognitive fitness, socio-emotional-moral fitness,

Basic Literacy and Numeracy: An Urgent Prerequisite for Study

1. First, vacant posts of teachers will be filled at the earliest in a time-bound manner, especially in the deprived (3).
2. Seats for stationary teachers are limited in areas with high child-teacher ratios or illiteracy.
3. Special attention will be given to recruiting teachers who know local languages.

4. A student-teacher ratio (PTR) of less than 30:1 is unlikely; areas with a large number of socioeconomically disadvantaged families will aim to maintain a PTR of less than 25:1. basic
5. Teachers are trained to teach literacy and numeracy, including professional development, training, and in terms of the curriculum, basic literacy relies on numeracy, i.e., generally operative (pre-education).
6. A pre-secondary curriculum from the beginning to the end: reading, spelling, speaking, counting,
7. A lot of attention will be paid to the mathematical analysis of the numerical
8. Currently, due to the lack of guaranteed availability of ECCE, the students in Class 1 pass within a few

The Role of Teachers in the NEP 2020

1. Teachers truly shape the future of their children, and hopefully the future of our
2. It is because of the noble contribution of teachers that teachers deserve more respect in India.
3. Only highly educated persons acquired the knowledge, skills, and values of teachers or gurus.
4. The society used to provide mothers with whatever was needed to educate the students.
5. The quality of training, recruitment, appointment, conditions of service, and empowerment of teachers should be (4).
6. Because of this, the quality and motivation of the teachers do not reach the required standards.
7. A high standard of respect should be given to teacher education so that young people can be motivated to become
8. Motivating teachers to make our children's education a better future for our country

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MULTIDISCIPLINARY APPROACH TO EDUCATION

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Abstract

Multidisciplinary means involving certain academic disciplines or professional courses in an approach to a topic. Students who are away from education due to certain reasons such as family problems, health issues, behavioral issues, learning difficulties, cultural differences, sexual identity, etc. are referred to as target students. The target students are facing different problems that cannot be properly addressed by a mono-disciplinary approach. In the current paper, a description has been made of the multidisciplinary approach to providing quality education for the students at the margins.

Keywords: multidisciplinary approach, marginalized students, mono-disciplinary approach, quality education.

Introduction:

The multidisciplinary approach involves selecting appropriately from multiple academic disciplines to define problems outside normal conditions and reach appropriate solutions; it motivates cross-disciplinary collaboration, enables students to develop critical thinking skills, and gives many "real world" opportunities for the future. Multidisciplinary research needs coordinated practices that bring together several disciplines to provide complementary contributions in the service of a common goal. It provides an opportunity to bridge disciplines, and one can combine multiple disciplines and get different ways of thinking about the same problem.

Accessibility to basic education is a problem for the target students as they suffer from many factors such as income differentiation, social status, etc. Those students have limited opportunities to make social contributions and also have low confidence. Without these marginalized sectors, no society will progress to the top. In the following topics, a brief description has been made of the multidisciplinary approach to enhance quality education for the students who are the target students in this study.

Multidisciplinary Research:

Multidisciplinary research needs collaboration with different professionals in different disciplines with various backgrounds and skills to find a solution in a different way, which is especially useful in the era of global competition to create innovative

values. The different backgrounds of a multidisciplinary team can give different views and experiences for better methods across cultures. A multidisciplinary design project is regarded as a magnificent and worthwhile experience, giving students a new way of thinking and the potential to create innovative products. For example, the collaboration between art and computer science creates a very different disciplinary environment where students are forced to explore the boundaries of their own era, be exposed to the work of other disciplines, and better understand their own role and the importance of team-based collaboration.

An independent researcher who designs and conducts their own experiments would never have these opportunities. Hence, it is necessary to bring a group of researchers from different fields to investigate the various problems and challenges faced by the target students. The important advantage of multidisciplinary collaboration is that all collaborators are forced to communicate, either to keep their ideas or to avoid compound programming efforts, and hence their communication skills improve. The process of multidisciplinary collaboration is difficult to understand without proper experience, so the advantage of multidisciplinary collaboration is becoming familiar with the complex processes in the industry. Thus, it gets familiar with the process of product development. Similarly, multidisciplinary collaboration promotes collaboration skills, especially with partners from different backgrounds. The lack of a common language and knowledge requires better collaboration skills. Executing the multidisciplinary project through creativity to implementation for the improvement of target students provides a sense of reality and prepares them for all development. At the same time, this process gives students the self-confidence they need to survive in their future careers.

The students learned things from other students from different backgrounds. In the industry or in mono-disciplinary education, it is not common to work in a diversified group for a full year. This experience gives me an opportunity to notice different ways of improving and to learn how to work as a team. Moreover, it upgrades one's sense of acquisition and professional abilities. A few advantages of multidisciplinary research are as follows:

1. The particular approach and knowledge may be worthwhile for a discipline but novel in other fields. Using the knowledge in this new field can give you a dominant advantage and a unique perspective on solving problems.
2. In the future, mono-disciplinary approaches will become crowded with specialists, and the number of distinct topics to be studied will be limited. However, a certain professor produces a number of students who wish to

establish themselves in a scientific field. They cannot keep doing exactly the same things in the same field.

Challenges:

A multi-disciplinary approach is an effective approach to giving quality education to target students, but it has certain limitations. The first challenge in doing multidisciplinary research is meeting the constraints of different stakeholders with different agendas. Thus, a main disadvantage of multidisciplinary research is that varying data collection requirements may hamper the project team's ability to meet all their members' distinct research objectives. This issue requires developing a proper process by which the project team can objectively agree to a primary goal while still allowing stakeholders to determine their specific research objectives and carefully classify their data collection for achieving this goal.

One of the main challenges was time. Multidisciplinary researchers have to read more and give more time to learning about the new disciplines and branches. Therefore, multidisciplinary research implies more expenditure by researchers in learning new disciplines. They further highlight that, for a multidisciplinary team, researchers need not only to finish their own work but also to spend time communicating and responding to the suggestions given by their colleagues. In the background are multidisciplinary research collaborators, which is another constraint. The working schedule of a researcher is very different from the working schedule of an engineer, a full-time programmer in an industry. Therefore, they had very little mutually suitable time to discuss the details of the research work.

The weaknesses of multidisciplinary research are mainly connected to problems of conversation between people from different disciplines and branches. These problems require more time for improvement than traditional research projects.

Conclusion:

Multidisciplinary research is the search for the hypothesis behind a problem by combining many academic disciplines, branches, approaches, fields, or methods. Moreover, it is defined as a search for knowledge through objective and proper methods for an original contribution to the existing stock of knowledge, which involves a combination of several disciplines and branches. Multidisciplinary studies address actual, current problems and focus on solving them. It leads to action- or policy-oriented application. But they must work with different expertise. Different expertise also means different approaches to problems, which can generate conflicts. Hence, the management of such types of projects is difficult. Thus, the multidisciplinary approach has certain limitations while also having many advantages, like encouraging collaboration among

various professionals and providing different solutions to a problem faced by the target students. As the target students have multidimensional problems, this multidimensional approach addresses various issues they face.

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CHOICE-BASED CREDIT SYSTEM: THEORETICAL STUDY

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Abstract

This is the time to shift to new methods of education. An 'interdisciplinary approach' has some drawbacks. The solution to this type of problem is to provide a choice for students to study multiple subjects and specialize in interdisciplinary education. Thus, the University Grants Commission has initiated several steps toward innovation and improvement in the course curriculum and the introduction of various types of examination, evaluation, and assessment systems. Students, depending on their interests and dreams, can choose interdisciplinary and skill-based courses, so a choice-based credit system (CBCS) is accepted. The choice-based credit system not only offers opportunities to learn core subjects but also opportunities to discipline not related subjects and explore the additional directions of learning behind the core subjects for the entire development. CBCS is necessary for higher education as this system improves sincerity among the learners as they prefer to learn the subjects of their choice. The present paper aims to highlight the theoretical study of the "choice-based credit system.

Keywords: higher education, CBCS, interdisciplinary approach, core course.

Introduction:

"Choice-Based Credit System (CBCS) is a modern concept of education in higher education that gives students the freedom to choose their own choice courses for completing the degree program". The University Grants Commission has come up with the Choice Based Credit System (CBCS) program in which the students have permission to choose courses from the prescribed course which are referred to as core courses, electives, or soft skill courses, and they can learn at their own pace; the entire assessment is grade-based in a credit system. The main idea is to find out the needs of the students so as to keep up with the development and progress of higher education in India. CBCS allows students an easy mode of access to various educational institutions spread across India, along with the facility of transferring credits earned by students. The choice-based credit system was considered the benchmark for our higher education against the international level. It is compulsory for a student to take the core subjects

every semester and choose elective subjects from the prescribed subject's unrelated to their own discipline. The aim of the Choice Based Credit System is to introduce a multidisciplinary approach to higher education, enabling a student to have a stronghold across multiple subjects from elective subjects.

Concept of the CBCS system in India

The National Knowledge Commission and Yashpal Committee recommended the renovation of higher education through academic and administrative approaches. Keeping in view the challenges of the changing times and making higher education in Indian universities compatible with the universities in developed foreign nations, the UGC stressed the following recommendations have to be put on the CBCS system in higher education:

- **Choice-based: Multiple educational courses are available.**
- **Grading:** Marks are secured in letter-grade format.
- **Semester:** Student-teacher engagement will be measured semester-wise.
- **Credit:** Each course of the class has specific credits.
- **Assessment:** Assessment will be carried out in the form of classroom attendance, vivas, seminars, open book tests, midterm tests, etc., and that will be continuous.

The vision of the CBCS system is

The vision of a choice-based credit system in higher education is:

- To evolve a higher education system that is suitably combined with provisions for knowledge values and skill practice.
- To develop a curriculum that would facilitate student-centric learning.
- To develop examination reforms in the higher education system.
- The ultimate vision is to bring reforms to higher education so that students develop thinking as well as analytical abilities.

Background of the study:

The Ministry of Human Resource Development of the Government of India has already initiated the process of implementing the New Education Policy (NEP) in our country to bring about reforms in the Indian education system. The University Grants Commission participates more actively in developing the National Education Policy. Its implementation and promotion of higher education in our country The UGC has already initiated several steps to bring equity, efficiency, and academic excellence to the National Higher Education System. The important ones include innovation and

improvement in the course curriculum, the introduction of a paradigm shift in learning and teaching pedagogy, examination, and the education system.

Objectives of the study:

The present study depends on the following objectives:

- To study the basic features of the choice-based credit system in higher education in India.
- To study the various types of courses in the choice-based credit system.
- To study the main elements of a choice-based credit system.
- To study the impact of the choice-based credit system in higher education in India.
- To study the advantages and disadvantages of the choice-based credit system in higher education in India.

Basic Features of the CBCS System:

The choice-based credit system gives students the opportunity to choose courses from the prescribed core courses, electives, or skill-based courses. The courses will be examined through the grading system, which is considered to be better than the traditional marking system. Therefore, it is necessary to introduce a grading system in the entire higher education system in India. Some basic features of the CBCS system are:

- Students have the great opportunity to learn at their own pace.
- Adopt an interdisciplinary approach to learning.
- CBCS is uniform for all central, state, and other recognized universities.
- Core, elective, and foundation courses are the three types of courses.
- Enhance skills by taking up project work, entrepreneurship, and vocational training.
- In the event of a change of study location, credits can be transferred.
- CBCS is an important step towards moving away from traditional numerical marking to grading.

Types of Courses in the CBCS System:

Under CBCS, learners can study the following courses:

- **Core Course:** A course that is strictly compulsorily studied by a student as a core requirement is termed a "core course."

- **Elective Course:** Generally, a course that can be chosen from a list of prescribed courses is called an Elective Course.

Basic Elements of the CBCS System:

The CBCS system has the following basic elements:

1. **Semesters:** The assessment will be carried out semester-wise. Each semester will be 15–18 weeks, which is equal to 90 teaching days.
2. **Credit system:** Each course has a certain number of credits. The student earns the credits, which are based on the course that he has passed. If a student passes a course in a semester, he does not need to repeat that course later in the future.
3. **Credit transfer:** If, for some reason, the learner cannot manage the study load or if he falls sick, he has the freedom to study other courses and earn other credits, and he can compensate for this in the next semester.
4. **Comprehensive continuous assessment:** There is a continuous evaluation of the students, not only by the teachers but also by the student himself.

Advantages of the CBCS system:

The advantages of the CBCS system in higher education in India are:

1. **Students Centric:** The CBCS system gives students the freedom to choose subjects according to their own learning needs, interests, and availability of resources, which is beneficial for them.
2. **Improve the interdisciplinary approach in education:** All cutting-edge development in technology occurs at the interface of two or more disciplines. Making the curriculum interdisciplinary enables the integration of concepts, theories, techniques, and perspectives from two or more disciplines to advance fundamental understanding or solve problems whose solutions are beyond the scope of a single discipline.
3. **Facilitates student mobility:** The CBCS system allows an easy mode of mobility to various educational institutions spread across India, along with the facility of transferring credits earned by students.
4. **Standardization of higher education:** CBCS upgrades the educational and occupational aspirations of the upcoming generation. The main advantage of the CBCS system is that the learning process will be continuous and the evaluation process will be learner-centric.

5. **Develop quality education:** Though the students choose courses of an interdisciplinary nature, the required courses for majoring in a subject will ensure depth. Professionalism and quality are the basis for every change.

The disadvantage of the CBCS system:

The disadvantages of the CBCS system in higher education in India are:

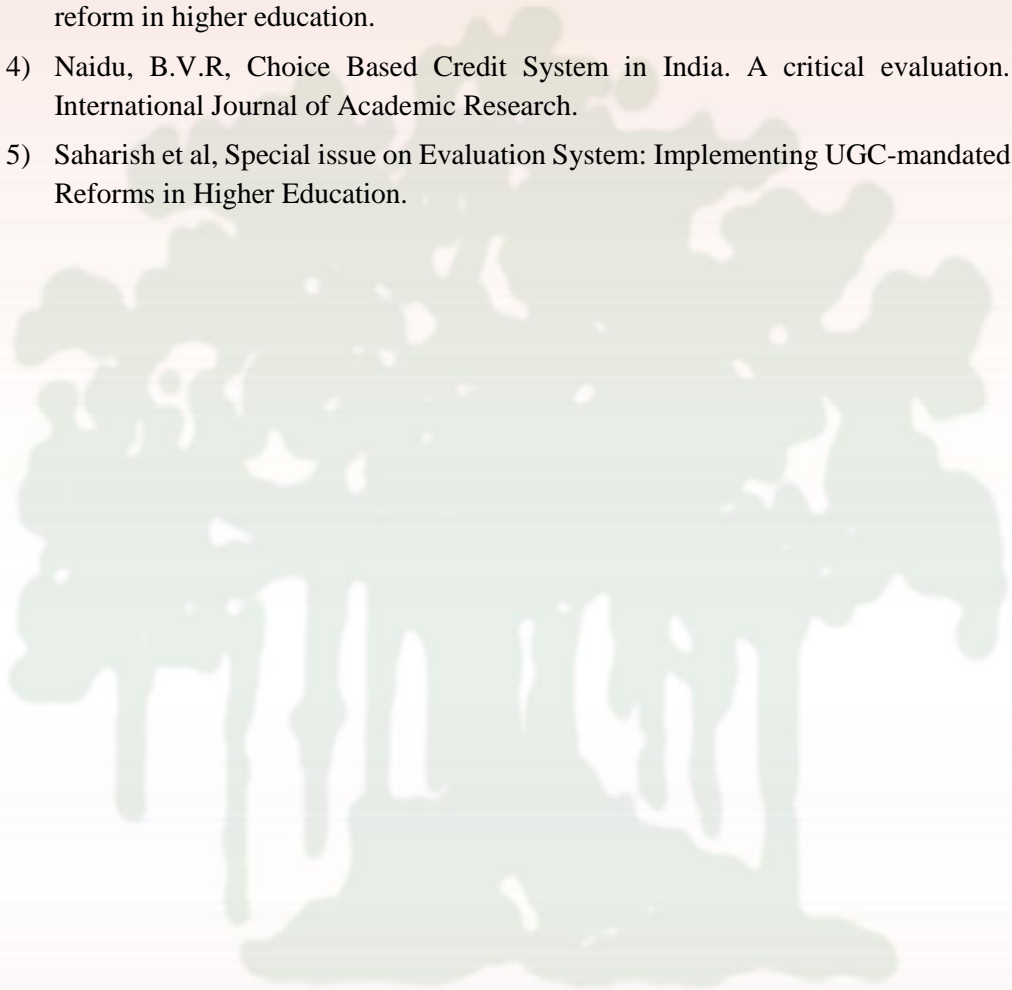
1. **Many Choices of Subjects:** The students in the CBCS may get confused due to the many choices of subjects available to them. Students may not know what to choose and what not to choose. This will create confusion in the mind of the student.
2. **Lack of knowledge on teaching capacity:** An individual opting for a certain choice may not know the teaching capacity of the faculty, the availability of resources with them, etc. This may leave a negative impression on the students after the selection is done if they are not satisfied with these things.
3. **Burden:** It is a burden on the faculty as well as the availability of resources. It is not necessary to be able to teach different subjects efficiently.
4. **Effective Time Management:** It will be difficult to manage the time for different varieties of subjects. Time management needs to be done by the institution, the faculty, and even the students. It requires a proper collaboration of the activities involved in the daily time schedule.
5. **Higher Expenses:** This impacts the money-making ability of the institution. The institution surely needs more faculty, more sources, more efficiency, more mentors, and more resources. To have this in proper balance, the institution will have to charge higher expenses. The burden of this will be automatically transferred to the students by increasing the fees.

Conclusion:

A choice-based credit system is essential for higher education. This system increases integrity among the teachers as well as the students. In the current economic crisis, innovation is seen as a key strategy for institutions and companies not only to recover but to produce and sustain growth into the future. It is concluded that education is not an end but an integral process in building the youth of a nation at a global level, and a well-designed system of evaluation is a powerful educational device. CBCS has been efficient in eliminating rote learning and memorizing and introducing critical thinking and analysis, which lead to creativity and innovation in the education system.

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NATIONAL EDUCATION POLICY 2020 AND GLOBAL EDUCATION

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Abstract:

The National Education Policy (NEP) 2020 is a comprehensive framework for transforming the education system in India. It aims to make education more inclusive, holistic, and multidisciplinary by focusing on key areas such as early childhood education, foundational literacy and numeracy, vocational education, and promoting research and innovation. The NEP 2020 also emphasizes the importance of technology in education and aims to bridge the digital divide by providing equitable access to quality education for all.

In the context of global education, the NEP 2020 is aligned with the United Nations Sustainable Development Goals. Development Goal 4 (SDG 4), which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. The NEP 2020 is also in line with the global trend of moving away from traditional rote learning and towards more innovative and student-centered centric approaches to education

Overall, the NEP 2020 is a significant step towards ensuring that India's education system is aligned with the changing needs of the 21st century and is capable of producing a workforce that is equipped with the skills and knowledge required to succeed in a rapidly changing global economy.

Introduction:

The National Education Policy (NEP) 2020, released by the Indian government on July 29, 2020, marks a radical shift in the country's approach to education. The policy, which replaces the 34-year-old National Policy on Education 1986, aims to restructure the education system and align it with the needs of the 21st century. One of the key objectives of the NEP 2020 is to make India a global leader in education by providing quality education to all. In this context, the present paper aims to analyze the impact of the NEP 2020 on global education and how it will position India as a leader in the field of education.

Background:

The National Policy on Education (NPE) of 1986 was formulated to provide a comprehensive and coherent framework for the development of education in India. However, over the years, the policy has become outdated, and the education system has

failed to keep pace with the changing times. The NEP 2020 seeks to address this by introducing reforms aimed at modernizing the education system, improving the quality of education, and ensuring that education is accessible to all.

Global Education:

Education has always been recognized as an important driver of economic and social development, and this has become increasingly important in a rapidly changing global economy. The global education market is estimated to be worth over \$4.9 trillion, with the majority of the demand coming from developing countries. In this context, India has a unique opportunity to become a leader in the field of education by providing quality education to its citizens and attracting students from around the world.

National Education Policy 2020:

The NEP 2020 aims to provide a holistic, multidisciplinary, and integrated education to all, with a focus on experiential learning and critical thinking. The policy outlines several reforms, including the integration of technology in the classroom, the promotion of mother-tongue education, and the promotion of vocational education. It also proposes a number of initiatives aimed at improving the quality of education and increasing access to education, such as the setting up of a National Education Commission, the establishment of a National Testing Agency, and the introduction of a four-year undergraduate program.

Impact on Global Education:

The NEP 2020 has the potential to transform the Indian education system and position India as a leader in the field of education. By providing quality education to its citizens, India will be able to attract students from around the world, thereby increasing its global competitiveness. The integration of technology in the classroom and the promotion of vocational education will also help India develop a workforce that is well-equipped to meet the demands of a rapidly changing global economy.

The promotion of mother-tongue education will also help to preserve the country's rich cultural heritage, which will be of interest to students from around the world. Furthermore, the establishment of a national testing agency will provide a credible assessment of the quality of education in India, which will be an important factor in attracting international students.

Conclusion:

The NEP 2020 marks a radical shift in the Indian approach to education and has the potential to transform the country into a leader in the field of education. The policy's focus on experiential learning and critical thinking, its promotion of mother-

longue education, and its integration of technology in the classroom will provide students with the skills and knowledge required to succeed in a rapidly changing global economy. The NEP 2020 is an important step towards realizing the dream of making India a global leader in education and providing quality education to all.

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NEP 2020 AND RURAL DEVELOPMENT

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Abstract:

The National Education Policy (NEP) 2020 is a comprehensive framework for the transformation of the Indian education system. The NEP envisions a student-centered, flexible, and multidisciplinary approach to education that fosters creativity, innovation, and critical thinking. Rural development is a critical aspect of the NEP, as it recognizes the need to bridge the urban-rural divide in education and create equitable access to quality education for all.

The NEP emphasizes the role of technology in improving access to education in rural areas and proposes the creation of a digital infrastructure to support this goal. It also advocates for the integration of vocational education and skill development into mainstream education to enhance the employability of rural youth. Additionally, the NEP recognizes the importance of community involvement in education and encourages the establishment of community-driven schools in rural areas.

Overall, the NEP's focus on rural development is a positive step towards ensuring inclusive and equitable education for all, regardless of their geographic location. However, successful implementation will require sustained efforts, adequate funding, and effective collaboration among stakeholders.

Introduction:

The National Education Policy (NEP) 2020, which was approved by the Indian government on July 29, 2020, has been introduced with the aim of transforming the education system in India. The NEP aims to make education more accessible, inclusive, and relevant to the needs of the 21st century. One of the key objectives of the NEP is to improve the quality of education in rural areas and bridge the gap between urban and rural education. In this article, we will discuss the provisions of the NEP 2020 related to rural development and their potential impact on the education sector in rural areas.

1. **Rural Development and Education:** Rural development is an important aspect of India's economic and social progress. The majority of India's population lives in rural areas, and improving the quality of life in these areas is essential for overall national development. Education is one of the key

drivers of rural development and plays a crucial role in empowering rural communities and improving their standard of living.

2. **The NEP 2020 and Rural Development:** The NEP 2020 recognizes the need to improve the quality of education in rural areas and provides several provisions to achieve this goal. Some of the key provisions of the NEP 2020 related to rural development are discussed below.
3. **Focus on Rural Education:** The NEP 2020 places a strong emphasis on improving the quality of education in rural areas. It recognizes that rural areas face unique challenges in terms of access to education and the quality of education provided. To address these challenges, the NEP 2020 provides for the setting up of rural education hubs and the deployment of specially trained teachers to rural areas. These measures are aimed at improving access to quality education in rural areas and bridging the gap between urban and rural education.
4. **Teacher Training:** The NEP 2020 places a strong emphasis on teacher training and professional development. The policy recognizes that the quality of education provided in rural areas is largely dependent on the quality of teachers. To address this issue, the NEP 2020 provides for the deployment of specially trained teachers to rural areas. These teachers will be trained in the latest pedagogical techniques and will be equipped with the necessary skills to provide quality education in rural areas.
5. **Rural Education Hubs:** The NEP 2020 provides for the setting up of rural education hubs, which will serve as centers of excellence in rural areas. These hubs will provide quality education, teacher training, and support services to schools in rural areas. The aim of the rural education hubs is to improve the quality of education in rural areas and provide students with access to quality education, regardless of where they live.
6. **Curriculum Reforms:** The NEP 2020 provides for curriculum reforms that are aimed at making education more relevant and inclusive. The policy recognizes that the existing curriculum does not adequately reflect the needs and aspirations of rural communities. To address this issue, the NEP 2020 provides for the inclusion of local and regional knowledge systems in the curriculum. This will ensure that the education provided in rural areas is relevant to the needs and aspirations of the local communities.
7. **Access to Technology:** The NEP 2020 recognizes the importance of technology in improving access to education in rural areas. The policy provides

for the use of technology to reach out to students in remote areas and provide them with access to quality education. The use of technology will also help to improve the quality of education provided in rural areas by providing teachers with access to the latest pedagogical techniques and educational resources.

One of the key areas of focus in the NEP 2020 is rural development. The policy recognizes that rural areas in India face unique challenges when it comes to education, and it lays out a roadmap for addressing these challenges. The NEP 2020 lays special emphasis on providing quality education to students in rural areas and ensuring that they have access to the same opportunities as their urban counterparts.

One of the main ways in which the NEP 2020 addresses rural development is through the establishment of teacher training institutes in rural areas. These institutes will provide teachers with training on new teaching methods and approaches and will also help address the shortage of trained teachers in rural areas. The policy also proposes the establishment of local schools in rural areas, which will be staffed by trained teachers and equipped with the latest teaching and learning materials.

Another important aspect of the NEP 2020 is the emphasis it places on providing education in local languages and dialects. This is particularly important in rural areas, where students may not be familiar with English or Hindi and where the teaching of local languages and dialects can help to preserve local cultures and traditions. The policy proposes the development of local language textbooks and learning materials and the training of teachers in the use of these materials.

The NEP 2020 also recognizes the importance of technology in education and proposes the use of digital tools and resources to support learning in rural areas. This includes the provision of digital classrooms, laptops, and tablets to students and the use of online platforms and e-learning resources to supplement traditional classroom-based learning.

In addition to these initiatives, the NEP 2020 also proposes a number of measures aimed at addressing the specific needs of rural areas. This includes the setting up of community learning centers in rural areas, where students can receive extra support and guidance outside of regular school hours. The policy also proposes the creation of rural innovation centers, which will encourage students to explore their interests and develop new skills.

The NEP 2020 also recognizes the importance of involving local communities in the education process and proposes the creation of School Management Committees (SMCs) in rural areas. These committees will bring together representatives from the local community, including parents, teachers, and students, and will be responsible for

overseeing the running of local schools and ensuring that they are meeting the needs of the community.

Conclusions:

1. The NEP 2020 is a comprehensive policy document that places a strong emphasis on rural development and the provision of quality education to students in rural areas. The policy recognizes the unique challenges faced by rural communities and proposes a range of measures aimed at addressing these challenges and ensuring that students in rural areas have access to the same opportunities as their urban counterparts.
2. By focusing on teacher training, the use of technology and local languages, and involving local communities in the education process, the NEP 2020 lays out a roadmap for transforming the education system in India and ensuring that students in rural areas receive the education they deserve.
3. The NEP 2020 is a landmark policy that has the potential to transform the education sector in India. The provisions of the NEP related to rural development are particularly important, as they aim to improve the quality of

The National Education Policy (NEP) 2020 has been a topic of intense discussion and debate in India ever since its inception. This policy aims to bring about radical changes in the education system of the country, with a focus on transforming the way students are taught and how they learn.

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NATIONAL EDUCATION POLICY 2020: OPPORTUNITIES FOR THE FUTURE

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Abstract:

The Indian education system becomes modern and progressive after implementing NEP 2020. The implementation of NEP 2020 was on a large scale, and we have never attempted it before. The goal of this policy is that the higher education ratio may change up to 2035 and may get doubled. This policy transforms India's youth into the world's largest skilled workforce, ready for perfection in the future. It makes holistic development of India's youth possible by depending on skill development like the Atmanirbhar Bharat Scheme. Vocational skills like carpentry, plumbing, electrical repair, horticulture, pottery, embroidery, and others provide hands-on training to middle-level students for exposure to their education. This policy sets a target to acquire knowledge and skills at the school level and extend them to the higher education level up to 2025 by providing vocational skills. Through inculcating an entrepreneurial spirit among the youth, we empower them and transform them from job seekers into job creators. Building team spirit and mental agility among the youth by using the power of sports provides them with a holistic educational experience.

Keywords: education system, holistic development, skills, schemes.

Introduction:

The National Education Policy 2020 is a welcome and ambitious re-imagination of India's education system into a modern, progressive, and equitable one. The success of this NEP demonstrates that decision-making can be dramatically simplified by using the structures that have emerged in recent years. With 350 million Indians in school-going or college-going age groups today, the implementation of NEP in large amounts has never been attempted anywhere in the world.

The increasing Gross Enrollment Ratio in the higher education space is currently around 26%, which is much less than other countries. The government needs to have stronger policies in place for the development of educational infrastructure, which promotes FDI and the strengthening of the capital pool. The NEP focuses on this.

1. India today has around 1,000 universities across the country. The policy has set a new goal to double the gross enrollment ratio in higher education up to 2035 by opening one new university every week.
2. The National Education Policy 2020 intends to bring 2 crore children who were not in school back into the school system. Whichever way you look at it, accomplishing 15 years requires the setting up of around 50 schools every week.
3. From a funding standpoint, this is not a challenge for the faint-hearted.
4. The current focus on healthcare and economic recovery will lower the execution speed. Economists have been calling for large stimulus packages amounting to double-digit percentages of GDP, despite the strain on the exchequer.
5. Creating a large pool of trained teachers for school education and making policy changes or redesigning the curriculum The need for trained teachers who understand the pedagogical needs
6. Inter-disciplinary higher education demands a cultural shift. In higher education, the National Education Policy 2020's focus on interdisciplinary learning is a very welcome step. Universities.
7. Single-stream Institutions are not allowed, so either smaller institutions will be taken over by larger institutions or smaller institutions will be closed.
8. Monitoring large numbers of universities and institutions is a huge task. It creates a drastic transformation in the lives of many high school and college students by introducing creativity, learning, experiments, visualization, and art in the education sector.

NEP 2020 and online education:

The NEP 2020 focused on online education by conducting pilot research studies in universities and to maximize the benefits of digital learning. Online platforms like DIKSHA and SWAYAM will be upgraded into e-resources, assessments, etc. for effective interaction.

It also emphasizes the development of open, interoperable digital infrastructure that can be used by various systems. NEP 2020 supports the development of virtual learning environments where students can apply their academic learning, as well as the availability of course materials in multiple languages for optimal learning. The recently rebranded Ministry of Education wants to create a special division to promote digital learning. Experts in education, educational technology, administration, and e-governance will make up the specialized unit, which will concentrate on meeting

the requirements of both schools and higher education in terms of online learning. Online tests and evaluations will receive more attention.

Digital technology is the driving force of the modern era, and the internet and the World Wide Web have an impact on the entire globe. The internet had also equipped both those seeking education and those offering it, bringing them together under one virtual structure. As a result, the idea of a virtual school has become popular all over the world. As a result, in the present world, online technology has an essential role in delivering education, and because of its flexibility, e-learning technology has grown in popularity. Considering the shift from the organized classroom education system to online education, the less fortunate groups now have greater access to education.

The COVID-19 pandemic and the relevance of online education:

With the imposition of lockdown due to the spread of coronavirus all over the country since March 2020, attending online classes has become the ‘new normal’ and has taken up a percentage of students’ lives now. This ‘new normal’ is a transformed concept of education, with online learning at the core of this transformation.

Framing mother tongue or regional language as a means of instruction

It is a very respectful gesture to implement the mother tongue in the New Education System. With this concept, the education system is aiming to not only promote the mother tongue but also give importance to the different regional languages. Students can now learn concepts in multiple languages until the fifth grade. It also helps students understand the importance and roots of their mother tongue.

Students at the undergraduate level have several options.

For the undergraduate level, students can opt for their desired courses for 1, 2, 3, or 4 years. They can aim at completing their desired courses in 1 year, getting a certification over some time, a diploma for completing any 2-year course, and then degree courses of 3 or 4 years. It will also help the students choose the best course based on their capabilities.

Providing Equal Education to Every Gender and Category

This idea is to promote education for every gender, caste, category, and disability. Everyone is equal in terms of getting a proper education. Education is a right and a power for every child in this world. This concept helps in providing educational facilities to different castes, categories, or genders. This concept always believes in providing education to those children who are neglected by society because of their low caste, being transgender, or having any sort of disability.

Other changes implemented through the NEP 2020

1. A number of entrance examinations are held for students in order to get entry at different recognized universities.
2. Producing different ways of learning, like online classes.
3. Introducing digital education on an online platform
4. Teachers are to be promoted or transferred based on a merit list.
5. Transforming learning into a fun and entertaining concept

Principles of this Policy:

Principles of this Policy: The goal of education is to create good people who are able to reason, act with courage and resilience, demonstrate compassion and empathy, have a scientific temper, have a creative imagination, and have strong ethical principles and values. In order to create the equitable, inclusive, and pluralistic society that our Constitution envisions, it strives to create involved, productive, and contributing citizens.

A good educational institution is one where each student feels valued and welcomed, where a safe and stimulating learning environment exists, where a wide variety of learning experiences are provided, and where all students have access to a good physical infrastructure and resources that are beneficial to learning. Every educational establishment must strive to achieve these qualities. But at the same time, every school of higher education However, there has to be seamless coordination and integration between schools and large-scale stages of education.

Challenges:

1. The sheer size and diversity of India's education sector make implementation an uphill task.
2. The NEP's eventual realization is critically linked to state capacity. As rightly pointed out by the NEP Drafting Committee led by K. Kasturirangan, India's education system is underfunded, heavily bureaucratized, and lacks the capacity for innovation and scaling up internal capacities within the education ministries (concentrated states) and other regulatory bodies that are grossly inadequate to steer the magnitude of transformations envisaged in the NEP. For instance, moving away from a rigid content-driven rote learning system to experiential learning and critical thinking would require nothing short of a revolutionary change in the attitudes of the people running the education system, let alone the attitudinal changes amongst the teachers, students, and parents.

3. NEP would largely hinge on the extent of cooperation between the center and states.
4. The role of the private sector, particularly in dealing with the higher education system, is extremely critical for translating the inclusionary vision of the NEP.

Creating a shared sense of responsibility and ownership amongst key stakeholders, including the private sector, at the state and district levels that have extraordinary diversity is going to be a major challenge for educational leadership. Several opposition-ruled states have been raising strong objections to several key provisions of the NEP and how they are being rolled out. The NEP has stated that to realize the goals of the new policy, the country has to raise public spending on education to 6 percent of GDP.

Criticism of NEP 2020:

NEP 2020 had also been criticized for avoiding parliamentary oversight, discussion, and examination. This is a rather hasty approach that appears to be intended to make a political statement given that it has been submitted at a time when Parliament is not operating as a result of COVID-19. Additionally, this is not the first time it has occurred. In the past six years, members of parliament have frequently been excluded from critical discussions, preventing them from critically analyzing policies, sharing their opinions, and making amendment suggestions. The policy is a vision statement that fails to include those in the lowest rungs of society and offers the poor, women, and members of the caste and religious minorities little to no relief because it glosses over important access problems.

Conclusion:

NEP is embedded in the education system and the overall development of educational institutes, teachers, and students. Through curricular activities and skill-based courses, multi-disciplinary factors enrich student strength in the overall education system. The opportunities had been reached through the online education system, which helps and creates a drastic transformation in the lives of many high school and college students by introducing creativity, learning, experiments, visualization, and art in the education sector.

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PROVOKING ANALYSIS AND DEEP THOUGHTS ON NEP 2020

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Abstract:

The first new education policy in 34 years has been brought out. The union Cabinet gave its nod to the new policy recently. The aim of the National Education Policy 2020 is to create an education system that is deeply rooted in Indian ethos and can rebuild India as a global knowledge superpower, by providing high-quality education to all.

This study is based on secondary data and is exploratory in nature. Findings are based on a systematic review of existing literature. It was found that one of the main objectives of NEP 2020 are to increase student enrollment in all educational institutions such as elementary schools, professional schools, and higher education by 2030.

This study is a preliminary review of the policy document, and it can be taken as the basis for future research with empirical data to study the impact of NEP after implementation. NEP 2020 is expected to give a big leap to higher education in India.

The vision is to create India 2.0 for the 21st century, which is bound to take leadership role at the global arena. NEP 2020 is largely a very progressive document, with a firm grasp the current socio-economic landscape and the prospect of meeting future challenges. If implemented properly, it has everything it takes to make India global hub in education by 2030.

Introduction

National Education Policy 2020 came with big dreams in the minds of the common people. The way it has been announced seems to be a celebration of government decisions. The policy has been aimed at achieving the hidden potential of the human being, which seems to be a mighty one. Though education policies are assumed to be the key perspectives of the government towards the future of any nation, In a summary, the national education policy 2020 describes itself as "This Education Policy envisions an education system rooted in Indian ethos that contributes directly to transforming India, that is, Bharat, sustainably into an equitable and vibrant knowledge society by providing high-quality education to all and thereby making India a global knowledge superpower."

Keeping this in mind, an effort has been made to provide a critical assessment of the NEP 2020 with deep thoughts on provoking analysis with its implementation perspectives.

Methodology:

An exploratory research methodology is adopted with a deep thought process on the keywords appearing in the policy documents. The selection of the keywords has been made based on pure randomness. The logic applied for this selection is based purely on the criteria of the experience gained by the authors in their academic careers.

The deep thoughts:

The policy brief stated that '*education is fundamental for achieving full human potential, developing an equitable and just society, and promoting national development*'. Promoting national development is the bigger agenda, involving various aspects and being monitored. With the help of gross domestic product, national income, the unemployment ratio, the Human Development Index, etc. In order to achieve all these kinds of parameters, multiple layers of national policies have to be reformed, such as industrial development policies and human resource development policies. The major drawback of this mighty aim is that national development is the joint function of various parameters and cannot be achieved with single policy changes such as education.

This policy further mentions that the aim of this policy is to achieve the full developmental potential of the human being, which is again dependent on the area and interest of the human being in which he is potentially ready to put his efforts. The potential for full development of the human being is to be measured based on the capacity of generating livelihood means and sources, and that is again considered to be narrow-minded by neglecting the arts and other entertaining skill resources. The policymaker should also focus on generating employment opportunities in the performing arts and other high-skill artistic platforms with decent working conditions so that the talent pool can be attracted towards these kinds of new sectors instead of engineering management and media. Finally, for an equitable and just society, it's preferable to depend on the minimum economic differences and the minimum regional imbalances in the economic status of the different societies. There are limitations to the education policy that make eradicating these imbalances not possible with the help of single policy reforms in education but with the help of social restructuring and social re-engineering theories.

The policy further seeks to "*ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*" by 2030 as per the global education

development agenda reflected in Goal 4 (SDG4) of the 2030 Agenda for Sustainable Development, adopted by India in 2015. An inclusive and equitable quality education for all is something that is very important, because considering the diversity in India and the cultural differences as well as the economic differences in the country, it is completely irrational to hope for an inclusive and equitable quality education. The lifelong learning opportunities, which cannot be the responsibility of the single-handed education system because once the formal education is completed by the person, he or she has to be subject to firm duties in the organization in which he or she is working, are to be manifested in the labour code and are to be enforced by the industrial policy makers so that the lifelong learning opportunity is to be available for the workers instead of the students.

In the NEP 2020, complex aims are to be seen that could possibly enhance the burden on the students as well as the faculties. This is reflected in the statement "*Jobs worldwide may be taken over by machines, while the need for a skilled workforce, particularly involving mathematics, computer science, and data science, in conjunction with multidisciplinary abilities across the sciences, social sciences, and humanities, will be increasingly in greater demand*". Any person cannot be superior in mathematics, computer science, data science, or multidisciplinary abilities such as humanity and the social sciences. This kind of superficial AIIMS of the education policy can possibly place a burden on the students to perform simultaneously on different and opposite kinds of specializations to fulfil the aim of the education policy. Also, to meet these learning needs, the educational systems and institutions have to be equipped with the multi-disciplinary capability to provide quality teachers and instruments for learning engineering, mathematics, and the humanities as well, and that is going to be very rare to achieve as a joint collaboration of all the streams is currently impossible, so it will take time to make this happen, and it is also probably going to be challenging to prepare a human being such as a superhuman being having abilities in mathematics, science, and the humanities.

The positive side of this policy is that it facilitates *children not only with learning opportunities but, more importantly, with learning how to learn*. Learning how to learn is an impressive aim of the policy that will be achieved only through facilitating freedom and a curriculum-free academic syllabus. The curiosity of the students is to be stimulated for searching for new ways of generating knowledge. Also, this ability is to be nurtured in early childhood. It is very interesting to see how teachers adopt this persuasion of the NEP 2020. The solution for this aspect has been provided in the policy itself with the statement, "*How to think critically and solve problems; How to be creative and multidisciplinary; and How to innovate, adapt, and absorb new material*

in novel and changing fields'. Though there are bigger dreams, bigger HOWs appeared in between the hopes for these dreams to come true? The policy is not going to change either the teachers in the system or their attitudes and teaching pedagogy, which could potentially create challenges in achieving the right outcome from the NEP 2020.

Further challenges in providing the *"unique pedagogy that must evolve to make education more experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centered, discussion-based, flexible, and, of course, enjoyable"* are becoming common in the impossible heaven of dreams. Providing experiential learning to the last students belonging to the remote village areas where merely safe drinking water in school is the dream, The discipline and traditional relationship between teacher and students will make inquiry-driven pedagogy impossible, which may be interpreted as student rudeness.

Concluding observations:

Ultimately, the discussion has been concluded with key points from NEP 2020 itself, such as "Education must build character, enable learners to be ethical, rational, compassionate, and caring, while at the same time preparing them for gainful, fulfilling employment" The new education policy must help re-establish teachers at all levels as the most respected and essential members of our society because they truly shape our next generation of citizens. It must do everything possible to empower teachers and help them do their jobs as effectively as possible. The new education policy must help recruit the very best and brightest to enter the teaching profession at all levels by ensuring livelihood, respect, dignity, and autonomy, while also instilling in the system basic methods of quality control and accountability.

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AN ANALYSIS OF INDIA'S NATIONAL EDUCATION POLICY 2020: A COMPREHENSIVE REVIEW

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Abstract:

The National Education Policy 2020 is a comprehensive document outlining the vision and strategy for the development of education in India. It aims to address the shortcomings of the previous policy and provides a roadmap for the transformation of the education system. This paper provides a comprehensive review of the policy, analyzing its strengths and weaknesses, and identifying the challenges that need to be addressed for its successful implementation. The analysis is based on an in-depth review of the policy document, consultations with experts, and a review of the existing literature on education policy in India. The review highlights the strengths of the policy, including its emphasis on early childhood education, the promotion of multilingualism, and the incorporation of technology in education. However, the review also identifies several challenges, including the lack of clarity on implementation and funding, the absence of a clear strategy for teacher training and development, and the need for greater emphasis on equity and inclusion. Overall, the National Education Policy 2020 represents a positive step towards the transformation of education in India, but its success will depend on the effective implementation of its vision and strategies.

Introduction:

In July 2020, the Indian government announced a new education policy after a gap of almost 34 years. The New Education Policy 2020 (NEP 2020) aims to bring significant changes to the education system in India by focusing on several key areas, such as the adoption of a multidisciplinary approach, the promotion of vocational education, and the use of technology. In this review article, we will discuss the major highlights of the NEP 2020 and its potential impact on the Indian education system.

Overview of the NEP 2020

The new education policy 2020 is a comprehensive document that covers various aspects of education, including early childhood care and education, school education, higher education, vocational education, and teacher education. The policy

aims to transform the education system by focusing on the holistic development of students and preparing them for the 21st-century world.

One of the key features of the NEP 2020 is the emphasis on multidisciplinary education. The policy proposes a flexible undergraduate education system that allows students to choose their courses based on their interests and strengths. The policy also recommends the introduction of vocational courses from class 6 onwards to prepare students for the job market.

The NEP 2020 also proposes the establishment of a National Education Technology Forum (NETF) to promote the use of technology in education. The policy recommends the integration of technology in teaching and learning, assessment, and administration. The policy also proposes the creation of an online repository of resources for teachers and students.

Another significant aspect of the NEP 2020 is the emphasis on early childhood care and education. The policy proposes the establishment of anganwadis and pre-school education for children aged 3 to 6 years. The policy also recommends the integration of early childhood education into the formal education system.

Implications of the NEP 2020

The NEP 2020 has several implications for the education system in India. One of the key implications is the shift toward multidisciplinary education. This shift will require a significant change in the curriculum and teaching methodology. The implementation of the policy will also require substantial investment in infrastructure, teacher training, and technology.

The policy's emphasis on early childhood care and education has another significant implication. The establishment of anganwadis and pre-school education will require significant investment in infrastructure and teacher training. The integration of early childhood education into the formal education system will also require a change in the curriculum and teaching methodology.

The NEP 2020's proposal to establish the NETF has another significant implication. The establishment of the forum will require investment in technology and infrastructure. The integration of technology in teaching and learning will also require investments in teacher training and capacity building.

Highlights of NEP 2020:

- a) **Early Childhood Education:** The NEP 2020 emphasizes the importance of early childhood education and aims to provide every child access to quality

pre-school education by 2030. This would include the establishment of anganwadis as well as pre-primary schools.

- b) **Multidisciplinary Approach:** The NEP 2020 promotes a multidisciplinary approach to education, which will allow students to choose subjects of their interest across various streams. This will help students acquire a wide range of skills and knowledge, thereby making them more versatile and adaptable in the future.
- c) **Vocational Education:** The NEP 2020 recognizes the importance of vocational education and encourages its integration into mainstream education. The policy aims to provide vocational education to at least 50% of students by 2025, which will equip them with the necessary skills to enter the workforce and contribute to the economy.
- d) **Technology:** The NEP 2020 emphasizes the use of technology in education, which will facilitate the adoption of online and blended learning models. This will enable students to access education from anywhere, thereby increasing the reach of education and making it more inclusive.
- e) **Flexibility in Curriculum:** The NEP 2020 promotes flexibility in curriculum and assessment, which will allow students to choose subjects of their interest and pace their learning accordingly. The policy aims to reduce the emphasis on rote learning and encourage critical thinking and problem-solving skills.

Major Features of NEP 2020

The NEP 2020 is a comprehensive document that addresses all aspects of education. Some of its major features are:

- a) **Holistic and Multidisciplinary Education:** The policy aims to provide holistic and multidisciplinary education by integrating various streams of knowledge, including science, the arts, and the humanities.
- b) **Flexibility in Choice of Subjects:** Students can choose their subjects of study based on their interests and abilities, leading to a more personalized education system.
- c) **Early Childhood Care and Education:** The NEP 2020 emphasizes the importance of early childhood care and education, which are critical for the overall development of children.
- d) **Vocational Education:** The policy aims to promote vocational education by providing hands-on training and skill development programs to students.

- e) **Use of Technology:** The NEP 2020 recognizes the importance of technology in education and encourages the use of digital resources for teaching and learning.

Need for a New Education Policy 2020:

The Indian education system has been a topic of discussion and debate for decades. The system, which is one of the largest in the world, has been criticized for its outdated curriculum, lack of emphasis on skill development, and over-reliance on rote learning. The COVID-19 pandemic has further highlighted the need for a comprehensive overhaul of the education system, and the National Education Policy 2020 aims to do just that.

The NEP 2020, which was approved by the Union Cabinet in July 2020, has been described as a "major reform" that seeks to transform the education system into one that is more holistic, flexible, and student-centric. The policy has been formulated after extensive consultations with stakeholders, including educators, students, parents, and experts in various fields.

One of the key features of the NEP 2020 is the emphasis on early childhood care and education (ECCE). The policy proposes the establishment of Anganwadis as "vibrant and stimulating ECCE centers" that provide children with "play-based, activity-based, and discovery-based learning." This is expected to have a positive impact on the cognitive, emotional, and social development of children and prepare them for formal education.

The policy also aims to promote multidisciplinary education, which allows students to pursue a wide range of subjects and develop skills that are relevant to their interests and aspirations. This is in contrast to the current system, which emphasizes specialization and narrow career paths. The NEP 2020 proposes the introduction of a "cafeteria approach" that enables students to choose from a variety of subjects and courses based on their interests.

Another significant aspect of the NEP 2020 is the emphasis on technology-enabled learning. The policy recognizes the potential of digital technologies to improve access, equity, and quality in education. It proposes the creation of a National Educational Technology Forum (NETF) to facilitate the use of technology in education and promote innovation and collaboration among stakeholders.

The NEP 2020 also seeks to address issues related to teacher training and professional development. The policy proposes the establishment of a National Mission for Mentoring that will provide "comprehensive teacher development programs" and support the professional growth of teachers. It also seeks to promote

continuous learning and development among teachers by encouraging them to participate in online courses and other forms of professional development.

The NEP 2020 has been hailed as a "game-changer" that has the potential to transform the education system and prepare students for the challenges of the 21st century. However, its implementation will require concerted efforts from all stakeholders, including the government, educators, students, and parents. It will also require adequate funding and resources to ensure that the proposed reforms are implemented effectively and sustainably.

In conclusion, the National Education Policy 2020 is a much-needed reform that seeks to address the shortcomings of the Indian education system and prepare students for the future. Its emphasis on early childhood education, multidisciplinary learning, technology-enabled learning, and teacher development is expected to have a positive impact on the overall quality and relevance of education in India. However, its success will depend on the commitment and collaboration of all stakeholders and the availability of adequate resources and funding.

Benefits of NEP 2020:

The NEP 2020 has several benefits, including:

- i. **Empowering Students:** The policy provides students with more flexibility and choice, empowering them to pursue their interests and abilities.
- ii. **Promoting Inclusivity:** The NEP 2020 aims to promote inclusivity by providing equal opportunities for all students, including those from marginalized communities.
- iii. **Enhancing Employability:** The policy focuses on vocational education and skill development, which will enhance the employability of students.
- iv. **Improving Quality of Education:** The NEP 2020 emphasizes the importance of teacher training, which will improve the quality of education in the country.
- v. **Challenges of NEP 2020:** While the NEP 2020 has many benefits, it also faces several challenges, including:
- vi. **Implementation:** The policy requires significant changes to the education system, which may be challenging to implement.
- vii. **Funding:** The NEP 2020 requires significant investment in infrastructure, teacher training, and other areas, which may be difficult to obtain.
- viii. **Resistance to Change:** The policy may face resistance from stakeholders who are resistant to change.

- ix. **Implications of the NEP 2020:** The NEP 2020 has several implications for the education system in India. One of the key implications is the shift toward multidisciplinary education. This shift will require a significant change in the curriculum and teaching methodology. The implementation of the policy will also require substantial investment in infrastructure, teacher training, and technology.

The policy's emphasis on early childhood care and education has another significant implication. The establishment of Anganwadis and pre-school education will require significant investment in infrastructure and teacher training. The integration of early childhood education into the formal education system will also require a change in the curriculum and teaching methodology.

The NEP 2020's proposal to establish the NETF has another significant implication. The establishment of the forum will require investment in technology and infrastructure. The integration of technology in teaching and learning will also require investments in teacher training and capacity building.

Impact of NEP 2020:

The NEP 2020 has the potential to bring about significant changes to the education system in India. It recognizes the importance of early childhood education, which is crucial for the holistic development of a child. The emphasis on a multidisciplinary approach and vocational education will help students acquire a wide range of skills and knowledge, making them more versatile and adaptable in the future.

The use of technology in education will facilitate the adoption of online and blended learning models, which will increase the reach of education and make it more inclusive. The policy's focus on flexibility in curriculum and assessment will reduce the emphasis on rote learning and encourage critical thinking and problem-solving skills.

However, the implementation of the NEP 2020 will require significant investment in infrastructure, teacher training, and curriculum development. The success of the policy will depend on the government's ability to provide adequate resources and support to implement the proposed changes.

Potential Benefits and Drawbacks:

The NEP 2020 has several potential benefits and drawbacks. One of the key benefits is the emphasis on multidisciplinary education. This shift will prepare students for the 21st-century world and improve their employability. The emphasis on early childhood care and education will also improve the overall quality of education and reduce the dropout rate.

The NEP 2020 proposal to establish the NETF has the potential to improve the quality of education using technology. The creation of an online repository of resources for teachers and students will also improve access to education.

However, the implementation of the NEP 2020 will require significant investment in infrastructure, teacher training, and technology. The policy's emphasis on early childhood care and education may also result in a shortage of resources for higher education. The policy's recommendation to establish a National Testing Agency (NTA) to conduct common entrance tests may also lead to a standardization of education, which may stifle the New Education Policy (NEP) 2020, a comprehensive and holistic policy document that seeks to overhaul the Indian education system. The NEP 2020 has been formulated after extensive consultations with stakeholders, including teachers, students, parents, and experts, and it aims to address the challenges and gaps in the existing education system while aligning it with the needs and aspirations of the 21st century.

One of the key objectives of the NEP 2020 is to provide universal access to quality education from early childhood through higher education. To achieve this, the policy proposes a range of measures, such as the establishment of pre-primary education for all children, the introduction of a new school curriculum with a focus on experiential learning, the promotion of multilingualism, and the use of technology for enhancing teaching and learning.

Another significant aspect of the NEP 2020 is the emphasis on vocational education and skill development. The policy recognizes the importance of equipping students with practical skills and knowledge that can help them succeed in the job market and contribute to the economy. To this end, the policy proposes the integration of vocational education into mainstream education, the establishment of vocational universities, and the creation of a national database of skilled workers.

The NEP 2020 also seeks to promote equity and inclusion in education by addressing issues of social, economic, and cultural diversity. The policy proposes the creation of special education zones for disadvantaged regions, the provision of scholarships and financial assistance to students from marginalized communities, and the inclusion of transgender students in all aspects of education.

However, the NEP 2020 has also faced criticism and concerns from various quarters. Some experts have questioned the feasibility of implementing the policy in its entirety, given the resource constraints and bureaucratic hurdles. Others have raised

concerns about the potential impact of the policy on the autonomy of universities and the role of private players in education.

Despite these challenges, the NEP 2020 represents a significant step towards transforming the Indian education system. It is a comprehensive and ambitious policy document that reflects the aspirations and needs of a rapidly changing society. As the implementation of the policy progresses, it is important to ensure that the concerns and feedback of stakeholders are considered and that the policy is adapted to the evolving needs of the education system.

Conclusion:

The New Education Policy 2020 is a significant step towards transforming the education system in India. The policy's focus on early childhood education, a multidisciplinary approach, vocational education, technology, and flexibility in curriculum and assessment has the potential to improve the quality of education and make it more inclusive. However, the successful implementation of the policy will require the government's commitment to invest in infrastructure, teacher training, and curriculum development.

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TRANSFORMING INDIA'S EDUCATION SYSTEMS: A CRITICAL ANALYSIS OF THE NATIONAL EDUCATION POLICY 2020

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Abstract:

The world has witnessed significant changes in education, especially with the advent of open and distance learning (ODL). ODL is a powerful tool that has revolutionized education by providing individuals with opportunities to pursue their educational goals from any location. This article examines the role of ODL in revolutionizing education in a changing world. It explores the benefits and challenges of ODL, its impact on access to education, and the technology that drives its success. The article concludes by emphasizing the need for policymakers and educational institutions to fully embrace ODL to provide quality education to all individuals regardless of their location.

Keywords: open and distance learning (ODL), education, geographical barriers

Introduction:

Education is a fundamental aspect of human development that has been undergoing significant changes over the years. One of the most notable changes is the emergence of open and distance learning (ODL), which has revolutionized education. ODL has made it possible for individuals to pursue their educational goals from anywhere in the world, breaking down geographical barriers that were once a significant impediment to education. This article examines the role of ODL in revolutionizing education in a changing world.

Benefits and Challenges of ODL:

ODL has numerous benefits, including providing access to education to individuals who would have otherwise been unable to pursue their educational goals. It also offers flexible learning options that allow students to learn at their own pace and in their preferred location. ODL also provides a platform for lifelong learning, allowing individuals to acquire new skills and knowledge throughout their lives.

Despite the benefits of ODL, it also faces several challenges. One of the most significant challenges is the lack of interaction between students and teachers, which can affect the quality of learning. ODL also requires students to be self-motivated and disciplined, as they are responsible for their own learning. Moreover, ODL requires significant investments in technology and infrastructure, which can be a significant financial burden for educational institutions.

Impact on Access to Education: ODL has had a significant impact on access to education. It has made it possible for individuals in remote and rural areas to access quality education, breaking down geographical barriers that were once a significant impediment to education. ODL has also made it possible for individuals with disabilities to access education, providing equal opportunities for all individuals regardless of their physical limitations. Moreover, ODL has made it possible for individuals with work and family responsibilities to pursue their educational goals without sacrificing their other commitments.

Technology: Technology is a crucial component of ODL. It provides a platform for delivering educational content to learners and facilitates interaction between students and teachers. Advances in technology have made it possible to deliver educational content in various formats, including videos, podcasts, and interactive simulations. Moreover, technology has enabled the development of learning management systems that provide students with a comprehensive and integrated learning experience.

Conclusion:

ODL has revolutionized education by breaking down geographical barriers and providing access to education to individuals who would have otherwise been unable to pursue their educational goals. Despite its challenges, ODL has proven to be an effective tool for providing quality education to all individuals, regardless of their location. Policymakers and educational institutions must fully embrace ODL to provide quality education to all individuals and prepare them for the changing world.

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NEP 2020 AND ITS IMPACT ON TEACHING PEDAGOGY

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Abstract:

The National Education Policy (NEP) 2020 is a comprehensive framework that aims to transform the Indian education system from its traditional approach to a more modern and holistic one. The policy brings significant changes in teaching pedagogy, including the introduction of innovative and student-centric methods of teaching.

The NEP 2020 emphasizes experiential learning and practical knowledge over rote learning. Encouraging teachers to adopt interactive and collaborative teaching methods. It encourages Teachers should use technology to make teaching and learning more effective and efficient, while also promoting critical thinking and problem-solving skills in students.

Another significant change brought about by the NEP 2020 is the integration of vocational education from the school level, providing students with practical skills that are in high demand in the job market. It also encourages teachers to design and develop their own teaching materials enabling them to be more creative and innovative in their approach.

Overall, the NEP 2020 has a significant impact on teaching pedagogy in India, promoting a more learner-centric and inclusive approach. It encourages teachers to be more flexible and adaptable to the changing needs of students, promoting their overall growth and development. With its focus on quality education and equitable access for all, the NEP 2020 has the potential to transform the education landscape in India.

Key words: NEP 2020, pedagogy

Introduction:

The National Education Policy (NEP) 2020 is a comprehensive document that aims to transform the education system in India. It has been formulated after extensive consultations with educationists, policymakers, and other stakeholders. The NEP 2020 envisions an education system that is equitable, accessible, and of high quality. The policy proposes several reforms in the teaching pedagogy that are expected to have a significant impact on the education system. In this article, we will discuss the NEP 2020 and its impact on teaching pedagogy.

NEP 2020: A Brief Overview

The NEP 2020 is a landmark policy document that replaces the National Policy on Education, 1986. The policy has been formulated to address the challenges facing the Indian education system and to prepare the country for the 21st century. The NEP 2020 aims to transform the education system by focusing on several key areas, such as early childhood care and education, curriculum and pedagogy, teacher education, and higher education.

Impact of NEP 2020 on Teaching Pedagogy: The NEP 2020 proposes several reforms in teaching pedagogy that are expected to have a significant impact on the education system. Some of the key reforms are discussed below:

Emphasis on experiential learning: The NEP 2020 emphasizes the need for experiential learning, which involves learning through direct experience, observation, and reflection. The policy proposes that students be exposed to hands-on learning experiences, such as project-based learning, problem-solving, and field trips. Experiential learning is expected to make learning more engaging, interactive, and enjoyable for students.

Integration of technology: The NEP 2020 recognizes the potential of technology for enhancing teaching pedagogy. The policy proposes the integration of technology in teaching and learning, such as the use of digital resources, online learning, and blended learning. Technology is expected to make learning more accessible, flexible, and personalized for students.

Multidisciplinary Approach: The NEP 2020 proposes a multidisciplinary approach to teaching and learning, which involves the integration of different subjects and disciplines. The policy suggests that students should be encouraged to explore multiple subjects and develop interdisciplinary skills. A multidisciplinary approach is expected to make learning more holistic, relevant, and meaningful for students.

Flexibility in curriculum and assessment: The NEP 2020 proposes flexibility in the curriculum and assessment system to promote creativity, innovation, and critical thinking. The policy suggests that students should have the freedom to choose their subjects and design their learning pathways. The assessment system should also be flexible to accommodate diverse forms of learning and evaluation.

Professional Development of Teachers: The NEP 2020 recognizes the critical role of teachers in transforming the education system. The policy proposes several reforms in teacher education, such as the adoption of a four-year integrated teacher education program, a National Curriculum Framework for Teacher Education, and continuous

professional development of teachers. These reforms are expected to enhance the quality of teaching and promote innovation in pedagogy.

Focus on Experiential Learning: NEP 2020 places a strong emphasis on experiential learning. The policy recognizes that learning happens best when it is based on real-world experiences. As a result, teaching pedagogy is likely to become more hands-on and practical. Teachers will be encouraged to use a variety of teaching methods, such as project-based learning, problem-solving, and inquiry-based learning, to create a more engaging and interactive learning environment.

Use of Technology: NEP 2020 recognizes the transformative role of technology in education. The policy emphasizes the use of technology to enhance teaching and learning. Teachers will be encouraged to use technology in the classroom to create a more personalized and engaging learning experience for students. The use of technology is also expected to make teaching more efficient and effective.

Multidisciplinary Approach: NEP 2020 encourages a multidisciplinary approach to teaching and learning. The policy recognizes that the challenges of the 21st century are complex and require a multidisciplinary approach to solve them. As a result, teaching pedagogy is likely to become more interdisciplinary, with teachers from different subjects working together to create a more holistic learning experience for students.

Emphasis on Teacher Training: NEP 2020 places a strong emphasis on teacher training. The policy recognizes that teachers are the key to creating a more effective and efficient education system. As a result, teacher training is likely to become more comprehensive and continuous. Teachers will be provided with ongoing professional development opportunities to keep up with the latest developments in teaching pedagogy.

Conclusion:

NEP 2020 has the potential to transform the education system in India. The policy places a strong emphasis on teaching pedagogy and seeks to create a more learner-centric and engaging learning environment. The changes that are likely to be seen in teaching pedagogy as a result of NEP 2020 are expected to create a more effective and efficient education system in India. However, the successful implementation of the policy will require a collaborative effort from all stakeholders, including teachers, students, parents, and policymakers.

The NEP 2020 is a comprehensive policy document that aims to transform the education system in India. The policy proposes several reforms in teaching pedagogy that are expected to make learning more engaging, interactive, and meaningful for students. The reforms are aligned with global best practices in education and reflect

the changing needs of the 21st century. The successful implementation of the NEP 2020 requires the collective effort of all stakeholders, including policymakers, educators, parents, and students. It is hoped that the NEP 2020 will pave the way for a more equitable, accessible, and high-quality education system in India.

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ADAPTATION OF INNOVATIVE PEDAGOGY FOR EFFECTIVE IMPLEMENTATION OF NEP 2020

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Abstract:

The National Education Policy 2020 declared by the Government of India endeavours to achieve the holistic development and expertise in specialized fields of its young population by giving them the finest education to maximize its rich talents and resources. The present article aims to deliberate on the National Education Policy 2020 and discuss the need for and ways of adapting innovative pedagogy. The key focus is on discussing the strategies for effective learning of study material and avoiding rote learning; the development of life skills and soft skills of communication and teamwork; problem solving; critical thinking; and creative thinking. The author discusses various pedagogies suggested by educational psychologists that would be helpful in the effective implementation of the policy. The expected skills and abilities can be taught with the help of proven teaching strategies and by being innovative in modifying these strategies according to the needs of individual classrooms.

Key Words: National Education Policy 2020, Innovative Pedagogy, Educational Psychology

Adaptation of Innovative Pedagogy for Effective Implementation of NEP 2020

An investment in knowledge pays the best interest. India has had a very strong base of education since ancient times. Its Gurukul system was famous worldwide. It was one of the attractions for several foreign visitors. Modern India also recognizes the need for quality education. It seeks the achievement of full human potential, the development of an equitable and just society, and the promotion of national development through quality education. The National Education Policy 2020 mirrors these efforts.

The policy makers acknowledge that individual and societal welfare is at the core of country welfare and the welfare of the world. The finest edification is fundamental for developing and maximizing our country's rich talents and resources to achieve the aforesaid welfare. In the upcoming decade, the nation will be the top country in the world with a young population. It will turn out to be our biggest resource

if we educate them appropriately. The National Education Policy 2020 endeavors to achieve this purpose.

Objectives

- To deliberate on the National Education Policy 2020
- To discuss the need for and ways for adaptation of innovative pedagogy.

As the policy is newly launched, research related to it is rare and scarce. The author of this article has attempted to contemplate the effective implementation of the policy with prior exposure to the research in educational psychology. The policy has a wide vision of holistic and multidisciplinary education that has deep roots and pride in India. It tries to do so by being more inclusive in its curriculum and by emphasizing extensive use of technology. But the present article mainly focuses on strategies for effective learning of study material and avoiding rote learning; the development of life skills and soft skills of communication and teamwork; problem solving; critical thinking; and creative thinking.

Discussion:

Pedagogy is an approach to teaching. The Merriam-Webster dictionary defines it as 'an art, science, and profession of teaching.' Pedagogy characterizes an organized system of findings about educational processes and the results of these processes, as well as the conditions and factors that shape education. It also denotes the key mediators in the educational process. It formulates and defines norms, principles, and guidelines for education and upbringing by proposing theories and verifying them in practice. (Timofeeva et al., 2020)

The pedagogical approach of an educator directs his teaching strategies. It aims at liberal as well as vocational education. Liberal education focuses on developing human potential, while vocational education concentrates on the imparting and acquisition of specific skills. The New Education Policy 2020, declared by the government of India, focuses on both liberal and vocational education. It stresses the holistic education of students that would help develop all capacities of human beings, which includes qualities that will help individuals progress, e.g., intellectual, aesthetic, physical, and emotional advances, and the development of soft skills. But it is not only limited to individual development but also envisions his social development by stressing ethical and moral education. The policy gives importance to rigorous specialization in a chosen field of learning, i.e., vocational education.

So, educationalists need to adapt new teaching and learning methods to achieve the goals of liberal as well as vocational development. The question is what pedagogical methods would help achieve this twofold goal and how teachers can adapt them.

Educational psychology can offer the best answers. The basic tenet of educational psychology is that teachers need to construct knowledge in students' minds, not simply impart it. The approach is known as constructivist theories of learning, which expect students to be actively participating in learning and continually checking new information against old rubrics and then revising rubrics that no longer work. Due to these reasons, constructivist strategies are often called student-centered education. In a student-centered classroom, the teacher becomes the "guide on the side" instead of the "sage on the stage," helping students to discover their own meaning instead of lecturing and controlling all classroom activities (Noddings, 2008; Weinberger & McCombs, 2001; Zmuda, 2008; Slavin, 2006). It is quite different from the traditional approach to teaching, where one-way communication was a way of teaching and students had to trust and follow the expertise of the teacher without much questioning or independent inquiry. The new Education Policy 2020 emphasizes student-centered education.

The policy emphasis on conceptual understanding rather than rote learning entails the memorization of facts or associations. Conceptual learning involves students' engagement in quality learning experiences that are based on key concepts and central ideas. The students are likely to relate new information to the information they already have. Making learning relevant and activating prior knowledge can be very effective in conceptual learning. This can be achieved through the methods of advanced organizers, analogies, elaboration, and using conceptual models. One of the ways to increase students' understanding and reduce rote learning is through cooperative scripting. Several students find it difficult to study alone. They prefer to discuss the study material for better understanding. This longstanding practice has been formalized as an effective study method where students form pairs and alternatively summarize the sections of the material for one another. While one student of the pair reviews the material, the other listens and corrects any errors or slips. Then they switch roles and continue until all the material is covered. The research of O'Donnell (2006) and Keer and Vanderlinde (2013) has shown that students who practice this method learn and remember better than students who review on their own or simply read the material and their studies.

The policy accentuates life skills such as communication, teamwork, leadership, and resilience. Life skills can be taught indirectly while teaching regular subjects with innovative methods. For example, adapting cooperative learning methods will be helpful in teaching the specific subject as well as life skills, as the method is mostly based on peer assistance. Here, students work together in small and different ability groups and stay together in group for several weeks or months to help each other learn. They are usually taught specific skills that will help them work together well,

such as active listening, giving good explanations, avoiding insults and criticism, and including other people (Slavin, 2006). The various types of cooperative learning methods are useful in teaching the different skills expected by the policy. For instance, Student Teams—Achievement Divisions (STAD) suggests making groups of four students with different abilities, genders, and ethnicities. After the presentation of a lesson by a teacher, students work together in their respective teams to ensure that all team members have grasped the study material. Finally, all students have to take individual quizzes on the material, where they cannot help each other. Apart from learning the syllabus material, students also learn cooperation, gender sensitivity, and ethnicity reverence, the values needed for their social development.

Likely, in the Teams—Games—Tournaments (TGT) Method, students play games with other teams to add points to their team scores. They can learn the importance of both cooperation and competition at the same time. Similarly, the Learning Together Model developed by David Johnson and Roger Johnson (1999) involves students working in heterogeneous groups of four to five members that are assigned a single task and receive praise and rewards based on the group's product. The model ensures team-building activities, one of the skills expected by the policy. The practice of other methods of cooperative learning, like Learning Together developed by David Johnson and Roger Johnson (1999), Peer-Assisted Learning Strategies (PALS), Informal Cooperative Learning Structures, and Project-Based Learning encouraged by John Dewey, an education reformer of the twentieth century, will also be a beneficial strategy in the effective implementation of the policy. The method of cooperative scripting mentioned earlier can also be very useful in developing the expected soft skills and people skills. The tutors can be innovative in modifying these methods according to the needs and situations of their classrooms. Though these methods are used in some educational institutions on a limited scale, their extensive use should be encouraged.

The policy also identifies problem-solving skills as an important soft skill to be learned. The learning cannot be said to be fruitful if students don't attain the ability to solve problems with their learning. And importantly, the research of Fuchs et al. (2006) shows that the skill of problem solving can be taught and learned. For instance, the proven five-step strategy like IDEAL developed by Bransford and Stein (1993) can also be taught. The acronym IDEAL represents five steps to solving a problem. The letter 'I' in the acronym suggests the first step of identifying problems and opportunities; 'D' signifies the second step of defining goals and representing the problem; 'E' describes the third step of exploring possible strategies; 'A' denotes the fourth step of anticipating outcomes and acting; and 'L' calls for the final step of looking back and learning. The means-end analysis and other strategies of extracting relevant information from

authentic sources, representing the problem by using diagrams and drawings, graphs, flowcharts, outlines, and other means of summarizing and depicting the critical components of a problem can also be taught (Jitendra et al., 2009; Van Meter, 2001). The strategies like incubation, suspension of judgment, appropriate climates, analysis, engaging problems, and feedback shall be taught to the students for fostering creative problem solving.

The policy acknowledges the importance of thinking skills and promotes critical thinking to encourage logical decision-making and innovation. The researchers have tried to develop and assess teaching strategies designed to increase students' general thinking skills. One of the approaches to teaching the skill is to integrate thinking skills into daily classroom teaching and thus create a "culture of thinking". The four-step process of stating, searching, evaluating, and elaborating can be used in classroom discussions on a particular topic.

The ability of critical thinking is crucial in making rational decisions about how to act in a particular situation and whether to believe or not in specific information. The ability can be improved with practice. Students can be provided with practice experiences by unravelling dilemmas, demonstrating logical and illogical arguments, showing valid and misleading advertisements, etc.

The various methods of conceptual learning and life skills as well as soft skill development discussed above can be helpful adaptations for innovative teaching.

Conclusion:

The New Education Policy 2020 can be effectively implemented with the principles and research in educational psychology. The expected skills and abilities can be taught with the help of proven teaching strategies and by being innovative in modifying these strategies according to the needs of individual classrooms.

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ENHANCEMENT OF TEACHING AND LEARNING THROUGH AN OUTCOME-BASED EDUCATION STRUCTURE

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Abstract:

Traditional education is losing relevance in the age of globalization. Everything in today's world changes at a rapid pace. Working with rapidly evolving technology necessitates more skills. Graduates from educational institutions should be able to keep up with technological advancements. To meet the requirement, the traditional education system must be replaced with outcome-based education (OBE), which includes program outcomes (PO), program-specific outcomes (PSO), and course outcomes (CO).

The proposed method can be trained further using different rules to improve the methodology's performance.

Keywords: *Conventional Teaching, OBE, PEO, PO, PSO, CO.*

Introduction:

Unlike most teachers, who focus excessively on what they teach rather than what their learners perform, OBE focuses on what the student is expected to achieve when they complete their course rather than how they achieved it. In an approach to education known as outcome-based education, rather than the educational process, decisions about the education system are made based on the knowledge, skills, abilities, values, and attitudes that students should possess by the conclusion of the course. It highlights the requirement that, before undertaking a journey, you must be aware of its destination. Tertiary education design innovation is a common effort around the world. Outcomes-Based Education (OBE) is an educational system that focuses on the outcome of learning rather than the implementation of learning. The OBE is intended to ensure that all students have met a certain set of learning objectives and outcomes by the end of their education. This educational system encourages a student-centred approach where students are empowered to develop the skills and knowledge they need to become successful. OBE is based on the belief that learning is an ongoing process

rather than a one-time event or set of activities. This means that students must continually assess their learning objectives and outcomes and take steps to meet them. OBE also encourages a more differentiated approach to teaching, allowing for a greater range of student input and creativity. Unlike traditional education systems, OBE is based on a set of learning objectives and outcomes. This means that teachers must identify the specific objectives and outcomes desired for their students and then develop strategies to help them reach those goals. This approach also encourages collaboration among teachers, administrators, and other stakeholders as they work together to create learning objectives and outcomes that are meaningful and achievable.

Finally, OBE encourages students to become self-directed learners. Rather than relying solely on the teacher for instruction, Android applications are increasingly popular among students and teachers alike. With the help of Android applications, students can access online educational resources and materials, interact with teachers and other students, and receive feedback and guidance. This makes the entire online learning experience much more comprehensive and user-friendly. Additionally, automation can be used to solve various educational challenges. Automation can be used to provide students with personalized learning experiences by tailoring educational resources and materials to their needs. Automation can also be used to ensure that students receive timely feedback and guidance from their teachers. Finally, automation can be used to improve the overall quality of the education system by providing high-security settings such as strong passwords that can protect users' data from unauthorized access. In conclusion, Android applications can be used to provide students and teachers with a comprehensive and user-friendly online learning experience. Automation can also be used to solve various educational challenges and improve the quality of the educational system. High-security settings can also be implemented to ensure the safety of users' data.

Objectives:

The primary objective of the studies is:

1. Examining the differences between the OBE system and the traditional system
2. Exploring the effects of OBE on the teaching and learning environments in schools analyzing the success and effectiveness of the OBE system in improving student achievement.

Research methodology:

During the survey, information was collected using a variety of research papers, journals, and documents created by various institutions.

Why Outcomes?

When it comes to OBE, the concept of outcomes is often overlooked. However, the term "consequence" is used in many contexts other than education. A quick search on the internet for 'consequences definition' will reveal a vast array of documents about the subject. In a nutshell, an emphasis on outcomes entails setting long-term, broadly defined goals and objectives and making individuals accountable for achieving them. The selection of policies, methods, and procedures should be made by individuals based on their professional judgment, which must be informed by relevant research, practice knowledge, and the needs of all involved.

The traditional education system

It is often characterized as being teacher-centric, curriculum-oriented, and knowledge being shared from teacher to student in one direction. While this system provides students with knowledge and skills, it lacks any connection to any particular context. There are several limitations to this approach to learning, such as:

1. Traditional classroom preparation does not promote critical thinking skills or the conscious application of professional and rational knowledge, instead favoring rote learning.
2. Students are passive learners, with the syllabus set out in a rigid format and the teacher in control of their learning.
3. Motivation is based on the teacher's personality and the student's ability to connect with them.
4. Since teachers and textbooks are the main sources of knowledge, the range of what can be taught and acquired is constrained.
5. Because different talents and interests are not always addressed in generalized education, some students find it challenging to learn what they are interested in.

Requirement for Outcome-Based Education

Outcome-Based Education (OBE) is a learning approach designed to empower students and prepare them for success after they leave the institution. It was developed as a response to the decentralization of educational institutions and the need to assess student success based on their values, skills, and knowledge. OBE can be implemented in various ways and requires a learning management system (LMS) to facilitate performance and provide an environment for development and efficiency. OBE is a creative and flexible approach to education, with a focus on problem-solving and interactive learning. As new technologies emerge, OBE can quickly adapt and incorporate them into the learning process. It is also devoted to fostering continuous learning and can be used to inform decision-making and management processes within

the institution. Overall, OBE is designed to help students gain the skills and knowledge they need to be successful in the future. It is a powerful tool that can be used to empower students and ensure they are ready to face the world after leaving the institution.

Requirements for OBE

The outcome-based education (OBE) model is a framework for measuring the progress of students in their educational program. This model focuses on outcomes rather than just the inputs and processes of learning. It makes use of four parameters:

- a) Program Educational Objectives (PEO): The Program Educational Objectives (PEO) are statements that illustrate the career and professional attainment that the program expects from students.
- b) Program Outcomes (PO): Program outcomes (POs) are statements that describe the expertise, skills, and attitudes that a student should demonstrate at the end of their program.
- c) Course Outcomes (CO): Course outcomes (CO) are specific outcomes for each course that are designed to be measurable. Lastly, Program Specific Objectives (PSO) are declarations that specify the skills that students should possess.
- d) Program-Specific Outcomes (PSO): The OBE model is used to measure the progress of students in their educational program by assessing these four parameters. This model helps ensure that students are receiving the necessary knowledge and skills to become successful in their professional careers.

Aspects of OBE

Traditional education focuses on the accumulation of knowledge and skills through memorization, repetition, and practice. It is based on the teacher-centered approach and emphasizes the development of basic skills like reading, writing, and math. Traditional education is often seen as a static process, with students following a set curriculum to achieve a certain outcome.

On the other hand, outcomes-based education (OBE) is more student-centered and focuses on the development of higher-order thinking skills. OBE emphasizes the use of authentic learning activities and assessments to drive instruction. It is often seen as a dynamic process, with students developing skills, knowledge, and attitudes that are relevant and applicable to the real world. OBE also encourages students to take an active role in their learning and encourages critical thinking and problem-solving.

Following are some aspects of OBE:

- a. **Learner-centric:** outcome-based education (OBE) is learner-centric. It focuses on the individual learner and their unique abilities, emphasizing their learning speed and capacity. Thus, it helps students learn according to their capabilities, thus fostering greater academic success.
- b. **Clarity and focus:** OBE require a clear understanding of the goals that the student and the teacher need to achieve. The course outcomes or program outcomes must be clearly understood by both parties. This helps to ensure that the student and teacher are both on the same page when it comes to learning objectives.
- c. **Opportunity:** OBE provides students with multiple opportunities to achieve results. It is important to note that marks are not the only measure of success, and students should be encouraged to express themselves and their understanding of the subject in their own way.
- d. **Involvement:** A key component of OBE is student involvement in the classroom. Students are expected to take initiative and learn on their own, which helps them gain a comprehensive understanding of the subject. Engagement from parents, community members, and other stakeholders can also be encouraged by allowing them to contribute to the creation and/or amendment of the curriculum.

Bloom's Taxonomy is a system for assessing the level of understanding or mastery of a subject. It is often used in education to evaluate how well students have learned a particular subject. Levels of Knowledge for OBE Based on Bloom's Taxonomy

1. **Knowledge:** The student should be able to recall information about OBE and its components.
2. **Comprehension:** The student should be able to explain and interpret the concepts and principles of OBE.
3. **Application:** The student should be able to apply the concepts and principles of OBE to solve problems.
4. **Analysis:** The student should be able to break down the OBE into its parts and explain the relationship between them.
5. **Synthesis:** The student should be able to devise creative solutions to problems using OBE.
6. **Evaluation:** The student should be able to evaluate the effectiveness of OBE and make recommendations for improvement.

The necessity of OBE

Outcome-based education (OBE) is a revolutionary new approach to teaching, learning, and assessment that has been gaining traction in many schools and universities. Its main purpose is to focus on the outcomes that students should be able to demonstrate rather than simply the knowledge or skills taught to them. OBE is a student-centered approach that is concerned with the development of competency and the application of knowledge rather than just the acquisition of knowledge. It is based on the idea that students should be assessed based on their performance and progress rather than their scores on tests or assignments.

OBE is intended to help learners become self-directed, lifelong learners who can identify and use the knowledge and skills they have developed to solve problems and make decisions. It emphasizes learning that is meaningful and relevant to the students' lives and experiences and encourages them to think critically and apply their knowledge to real-world scenarios. It also encourages collaboration, problem-solving, critical thinking, and the development of transferable skills.

OBE has become increasingly important in an increasingly globalized society, where students need to be able to apply their knowledge and skills in a variety of contexts. OBE also encourages students to take greater ownership of their learning and to be active participants in the learning process. It also helps to ensure that students are learning the right skills and knowledge to be successful in their chosen disciplines.

OBE is not without its critics, however. Some argue that it is too focused on assessment and not enough on teaching, and that it is too focused on the end product rather than the process of learning. Others argue that it is too focused on the learner and not enough on the teacher.

Despite its critics, the OBE is an important part of the modern educational landscape. It is an effective way to ensure that students are learning meaningful and relevant knowledge and skills and that they can apply them in a variety of contexts. It is also an important way to ensure that students are engaged and motivated in their learning and that they can become lifelong learners.

Limitations of OBE

1. **Lack of standardization:** OBE programs can vary significantly from one school district or institution to another, making it difficult to assess the quality of the program and compare results.
2. **Difficulty of implementation:** OBE programs can be difficult to implement, particularly with larger school districts or institutions, due to a lack of resources, training, and support.

3. **Cost:** OBE programs can be very expensive, as they often require a significant investment in technology, materials, and staff.
4. **Difficulty of measuring results:** OBE programs can be difficult to measure due to the complexity of educational outcomes and the lack of a standardized assessment system.
5. **Resistance to change:** OBE programs can be met with resistance from teachers, administrators, and other stakeholders who may not be comfortable with the changes associated with them.

Advantages of OBE

- i. It encourages students to take responsibility for their learning and to become self-motivated; it allows students to develop skills in communication, decision-making, problem-solving, and critical thinking.
- ii. It encourages students to develop skills for working with others.
- iii. It gives students the freedom to explore their interests and pursue their learning pathways.
- iv. It allows teachers to assess students in a more meaningful way, as they can provide feedback on a student's progress throughout their learning journey.

Disadvantages of OBE

- i. It can require a high level of commitment from both the student and teacher, which can be difficult to manage.
- ii. It may not be suitable for all students, as they may need more structure and guidance in their learning.
- iii. It may be difficult to assess the effectiveness of OBE as there is no set standard for measuring success.
- iv. It requires a high level of technology and resources, which may not be available to all schools.
- v. It can be time-consuming for teachers, as they have to monitor and evaluate the progress of each student on an individual basis.

Features of OBE:

1. **Clear learning objectives:** Students should be provided with clear, measurable learning objectives that define the expected learning outcomes.
2. **Active learning:** Learning activities should be designed to engage students in active learning and problem solving, such as experiential learning, case studies, simulations, and project-based learning.

3. **Assessment:** Assessment of student learning should be embedded in the learning activities and provide immediate feedback.
4. **Personalization:** Learning should be personalized to meet the needs of each student and provide them with an opportunity to demonstrate their learning in different ways.
5. **Relevance:** Learning should be connected to real-world contexts, current events, and relevant topics to make the learning more meaningful and engaging.
6. **Reflection and metacognition:** Students should be encouraged to reflect on their learning and develop metacognitive skills such as self-monitoring, self-regulation, and goal-setting.
7. **Flexibility:** Learning activities should be flexible and provide students with the opportunity to work independently or collaboratively.
8. **Technology:** Technology should be used as a tool to support learning and provide students with access to a wide range of resources and learning materials.

Conclusion:

Outcome-Based Learning (OBL) can alter the way students learn, making it essential for academic institutions to incorporate it into their curriculum. Rather than simply aiming to attain higher marks than their peers, this approach allows students to acquire experience that will be beneficial to them in the future. Despite the promising results of OBE for university students, further testing with a larger sample size and more comprehensive outcome measures, such as improved aptitude in other areas and student satisfaction, is needed.

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THE BENEFITS AND IMPLEMENTATION OF OUTCOME-BASED EDUCATION

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Abstract:

Outcome-based education is a type of education in which students can expand their own ideas and do it practically. Due to NEP's outcome-based education, students can implement their own ideas and try other subjects than those on the syllabus. The NEP support student to develop career by choosing that subject in which has they have interest. Due to outcome-based education, the burden and stress of exams can be minimized. Outcome-based education helps students develop the skills and knowledge they need to have when they learn in school also. The main principle of outcome-based education is continuous student improvement. In today's education, Sanstha needs to understand that OBE is not only a skill in education but also one of the most important parts of it. OBE is one education model in which syllabus teaching and implementation and ability of student is present by his skill knowledge. In NEP2020 education system not only focuses on student marks also check its skill and concentrate on it to developed student self. If you see in world, we clearly understand most of companies developed in technique field .in future technology based skilled improvement is essential. It is done only by OBE. In today's world, we cannot ignore the competition in every sector, so now each sector needs a technical and functional person without any mistakes or lack of knowledge, which can only be done by an OBE. OBE is mainly used in education because it concentrates and implements everything around education, which is necessary for students to finish their education. There are seven studies developed in OBE to overcome student knowledge due to the fact that OBE students prefer English, and what are the requirements of employees?

Keyword: outcome-based education, student learning, high-level education.

Introduction:

Outcome-based education is an example of focusing on student goals rather than performance. In this OBE, we can also check student performance by taking various tests, a project quiz, and some competitions. By doing this, the student's result is displayed by its better work. Teachers set some plans to improve student knowledge, and students acquire it clearly and give their results at the end of the course. OBE is one method which start with clearance of what is important for student, and student can capable to done this .Teachers should concentrate on increased student skills and their personalities to engage students deeply in education. Teachers should give high challenges and encourage the students. It is the most advanced technique in recent years. It very useful hence it enhance in most of university. Automation is very useful for sorting out problems related to the education curriculum.

Objectives of the study:

The objectives of outcome-based education are as follows:

1. To understand the limits of the normal old learning system.
2. To explore the advantages and greatness of outcome-based education.

Conventional/Normal Education System:

The normal or standard education system is teacher-based, or sometimes it may be one-directional, meaning the teacher says the information, which the student only hears and they lack knowledge of communication with the respective teacher. There are some limits to the normal education system, like the following:

- a. A teacher is responsible for learning due to one-way communication.
- b. The simple daily classroom is not sufficient for the critical imagination across the corresponding subject.
- c. There is a need for a standard or professional class for thinking and memorizing.
- d. In normal learning, the learning is only guided by syllabus-wise criteria, which is insufficient for student implementation.
- e. Due to this book-oriented knowledge, there is a high need for skill-based knowledge.
- f. The original talent and skill remain behind due to this normal education system.

The Need for Outcome-Based Education:

OBE is needed for students to achieve their success on their skills, knowledge, and value.

1. It provides space to develop student skills.
2. It useful to mapped high and reputed universities.
3. It is active technique which is creative also.
4. It involves study, which is based on discussion.
5. It works quickly with new technologies.

It is an approach oriented toward improvement. It sets goals with skill for success. The NEP 2020 helps students foster creative learning among themselves and boost their employment qualities. During outcome-based education, the government provides skilled-based education, summer courses, practical learning, and the freedom to choose.

In outcome-based education, this particular subject is an old but effective concept. The NEP emphasizes this OBE in India for skilled education. Everyone should concentrate on OBE for the desired result. This will provide some information or skills to attain success.

OBE is adopted by all over the world, with India also

Australia	-	1990
USA	-	1994
Hong Kong	-	2005
India	-	2013

OBE has started improving in higher education with graduation and diplomas. The national board also emphasizes outcome-based education in engineering, pharmacy, and management. Outcome-based education is an aim-oriented education type. It involves self-teaching and achieves goals. The main goal of OBE is to ensure that students attain their expected knowledge and the desired result of it. In this, we first set future outcomes for students, then evaluate them. Outcome based education has goal is create learning which changes in learners which is more knowledgeable and better skilled base

OBE gives the following outcomes:

1. Communication ability
2. Employer requirement: quality
3. Creative work and responsibility
4. Skilled in health monitoring
5. Skilled in technology

6. Life and career planning
7. Ability to solve problems
8. Improved understanding

It includes students' and teachers' stakeholders. It is result of together with implemented educational model. By using OBE, students concentrate on various extra outcomes. They encourage people to develop a positive attitude or develop values. It developed habits of mind in students to prepare them after their graduation. Student get experience when they graduate; it is adaptive for student need. It gives the perfect space to achieve mastery of a particular skill. This OBE includes a large change in education. The education for the new generation is digital and dematerialized. Which improves a set of capabilities to improve the ability to keep it up.

Conclusion:

Outcome base Education is an educational method where each property of study is organized around the outcomes. The student attained their achievement at the end of the course. It utilizes the clearly articulated ideas of the student. It helps students decide their course. It very clears method student know the expectation of course as well teachers know its demonstration. The expectation between student and teacher gives a precise outcome. Which help to choose field in which student has interest. OBE determines student achievement and course records. This allows for self-development and career progression.

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**THE BENEFITS AND CHALLENGES OF OPEN AND DISTANCE
EDUCATION: A COMPREHENSIVE OVERVIEW**

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Abstract:

The open and distance learning system is the integrating technology to reach the student since the beginner of technology. In ODL system student and teacher are present in the same place is not necessary. The open and distance education systems give flexible learning opportunities to individual and group learners. ODL is one of the most rapidly growing fields of education now and has a considerable impact on all education delivery systems. Open and distance learning education is the systematic study of an alternative education system. The new ODL system is very fast because of the development of the World Wide Web.

The concept of the ODL system came from the idea that students and teachers cannot be in the same classroom and they should be separated by some distance or they cannot come too close to each other to make the entire education system flexible. It is mostly used in telecommunication companies', industrial corporations, and today's urgent education and training.

Keywords: open and distance learning (ODL), online learning, blended learning, and national education policy.

Introduction:

Distance education means not attending the regular school and having no eye contact with the teachers and learners. Now a days, there are many facilities to learn without teachers and the classroom, e.g., e-learning, online learning, etc. It includes the process of distance learning and distance teaching. It gives more opportunities for education. To continue the education, they balance the process of learning with your regular work and personal life. So, in that place, they can study with their own minds and set their own study space. When and where they should study, and with these opportunities, they can't stop their knowledge, and they can move easily without any quibbles and go anywhere in the world. A student can study undergraduate, postgraduate, and professional-level courses through distance education. University has given the permission of their syllabus and their degree from both distance education.

Distance education gives new choices and new opportunities to the student and their personal education and development. So, the learners get a greater education to learn and get by without regular classes, and there are lots of personal communities to deal with their busy life schedule.

Students get the benefit of their regular education and corresponding admission without having regular classes and a busy schedule in their lives. Such limited opportunities have been provided for the integration of technology in distance education. So, the student can study on their own and complete their project or assignment on their laptops or computers with the help of an internet connection at home. Distance education has given ICT technology a start. Distance education also offers the opportunity to connect face-to-face with ICT. All boundaries, giving it a blended format.

Objectives of the study:

- 1) The objectives of open and distance education are as follows:
- 2) How open and distance education evolves from technology-mediated to blended learning
- 3) How blended learning can leverage the teaching and learning process
- 4) How is the national education policy 2020 promoting blended learning in the Indian higher education system?

Acronyms used in the paper:

- ODL stands for open and distance learning.
- NEP stands for "National Education Policy.

Research methodology:

This study is based on a qualitative research method using document analysis (Bowen, 2009) to study how the evolution of distance education took place and to analyze paradigm shifts in open and distance learning in light of 2020 national education policy in leveraging blended learning in the Indian higher education system.

Result and Discussion

1. The evolution of open and distance education to blended learning

Distance education has been introduced by various researchers in different ways. Keegan (1980) has defined distance education in terms of six characteristics, i.e., teacher-learner separation, education organization influence on planning and student support, media usage, two-way communication, participation in an industrialized form of education, and the learner as an individual or privatization of learning.

According to Taylor (2001), distance education has evolved through five generations on the basis of dominant technology. These five generations of distance education given by Taylor are presented as follows:

- a) The correspondence models
- b) The multimedia models
- c) The tele-learning models
- d) The flexible learning models
- e) The intelligent, flexible learning model

While, on the basis of education, open and distance education are categorized into three generations by Anderson and Drone in 2011. These three generations are presented as follows:

- a) Cognitive-behavioral education
- b) Social constructivist education
- c) Connectivity education.

2. Blended learning: leveraging the teaching-learning process

Different education described blended learning in different ways. The education considered is a mix of some technological interventions and traditional face-to-face instruction. Blended learning is a combination of classroom learning and online learning. Blended learning is an instructional methodology that provides a more personalized approach to learning, giving students control over the time, place, path, and pace of their learning.

Role of NEP 2020 in promoting blended learning:

India, in the present 21st century world of ever-developing science and technology, requires a robust and upgraded educational system to cope with the advancement and achieve sustainability.

The NEP suggests carrying out research to ensure the implementation of new advancements in technology into educational processes. Various institutions, like the National Education Technology Center, change the education of open and distance education systems with blended learning.

Need for open and distance learning education:

- a) Distance education makes it much easier for students to complete a degree.
- b) Get additional job training.
- c) Distance learning teaches time management and other skills.

Conclusion:

It was concluded that online learning is beneficial to the students, tutors, and institution offering this course. I would therefore recommend that online learning be implemented in all learning institutions and that research on how to improve this learning process be carried out.

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SWAYAM EDUCATION: AN OPPORTUNITY FOR E-LEARNING

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Abstract:

E-learning has become a popular mode of education in recent years, especially with the advancement of technology and the convenience it offers. With the pandemic outbreak and the subsequent lockdowns, the demand for online education has skyrocketed, making it the need of the hour. In such a scenario, Swayam Education has emerged as a ray of hope for students who are looking for quality education from the comfort of their homes. Swayam, which stands for Study Webs of Active-Learning for Young Aspiring Minds, is a program initiated by the Government of India to provide quality education to students through the use of information and communication technology (ICT). The platform offers free online courses in various disciplines, including engineering, science, humanities, and management, among others. It is a part of the Ministry of Education and is designed to cater to the educational needs of students across the country. One of the most significant advantages of Swayam Education is that it provides access to quality education to students regardless of their location. With its extensive reach, students from remote and rural areas can also benefit from the program. The courses are designed by experienced faculty from reputed educational institutions and are available 24/7, enabling students to learn at their own pace.

Keywords: ICT, Swayam, education, e-learning.

Introduction:

Swayam Education offers several benefits to students, including flexibility, affordability, and convenience. The platform provides an opportunity for students to upgrade their knowledge and skills without leaving their current commitments. The online courses are self-paced, allowing students to study at a time that suits them best. Additionally, the cost of education on Swayam is minimal, making it accessible to students from all walks of life. Another advantage of Swayam Education is that it provides students with a wide range of courses to choose from. The platform offers more than 2,000 courses, covering a vast array of subjects, including engineering, science, humanities, and management, among others. Students can choose the courses

that interest them the most and pursue their education in their preferred field of study. Swayam Education also provides students with an opportunity to interact with other learners and faculty members. The platform has a discussion forum where students can participate in discussions, ask questions, and share their ideas with other learners. This interaction helps students develop their communication skills, expand their knowledge, and enhance their learning experience.

Moreover, the certificates offered by Swayam Education are recognized by reputed educational institutions and organizations, providing students with the opportunity to showcase their knowledge and skills to potential employers. The certificates are an added bonus, and students can use them to further their careers and enhance their job prospects. With the advancements in technology, the way we learn has changed dramatically. Traditional education has given way to e-learning, and this shift has brought about a new era of education. E-learning has been embraced by students and educators alike, as it provides a flexible and convenient way to learn and teach. One of the key players in this field is Swayam Education. This platform is an opportunity for students to expand their knowledge and for educators to reach a wider audience. In this article, we will explore Swayam Education and how it is changing the landscape of e-learning.

Objectives: Swayam is an acronym for "Study Webs of Active-Learning for Young Aspiring Minds". It is a government-sponsored initiative aimed at providing quality education to students across India. The platform offers free online courses in a wide range of subjects, including science, technology, engineering, mathematics, the humanities, and many more. The courses are available in multiple languages, and students can access them from anywhere in the world at any time. Swayam Education is a game-changer in the world of e-learning. With its free courses and flexible learning environment, it has become an opportunity for students to expand their knowledge and for educators to reach a wider audience. Here are a few key reasons why Swayam Education is so important:

1. **Accessibility:** Swayam Education is accessible to anyone with an internet connection. This means that students from rural areas, who may not have access to quality education, can now learn from some of the best educators in India.
2. **Flexibility:** The platform allows students to learn at their own pace and on their own schedule. This means that students can work around their busy lives and still pursue their education.

3. **Quality Education:** Swayam Education is committed to providing quality education to students. The courses are developed by experts in their field and are updated regularly to keep pace with advancements in technology and research.
4. **Wide Range of Courses:** Swayam Education offers a wide range of courses covering a variety of subjects. This means that students can find a course that interests them and expand their knowledge in that area.
5. **Cost-effective:** One of the biggest advantages of Swayam Education is that it is completely free. This means that students can access quality education without incurring any costs, making it an opportunity for those who may not be able to afford traditional education.

How Swayam Education is changing the Landscape of E-Learning

Swayam Education is changing the landscape of e-learning in several ways. Here are a few key ways in which Swayam Education is making an impact:

- **Providing Access to Quality Education:** With Swayam Education, students who may not have access to quality education can now learn from some of the best educators in India. This is especially important for students in rural areas, who may not have access to traditional education.
- **Encouraging Lifelong Learning:** Swayam Education is providing an opportunity for students to continue learning, even after they have completed their formal education. This means that students can continue to expand their knowledge and stay up-to-date with the latest advancements in their field.
- **Bridging the Skills Gap:** The platform is providing students with the skills they need to succeed in the 21st century. This includes critical thinking, problem-solving, and technology skills, among others.

Conclusion:

1. Swayam Education is an opportunity for students to receive quality education from the comfort of their homes. With its extensive range of courses, flexible schedule, and affordable cost, students from all walks of life can benefit from the program. The platform provides students with an opportunity to upgrade their knowledge and skills, interact with other learners and faculty members, and receive a recognized certificate upon completion of the course. Swayam Education is a step in the right direction for e-learning and is a boon for students who are looking for quality education at an affordable cost.

2. Swayam Education is a step forward in the world of online education and offers a vast array of opportunities to students. The platform provides access to quality education, flexibility, and affordability, making it the perfect solution for students who are looking for a convenient and cost-effective way to further their education. If you're interested in pursuing a career in your preferred field or just looking to upgrade your knowledge and skills, then Swayam Education is the perfect solution for you.

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SWAYAM EDUCATION: A SUPPORT SYSTEM FOR BUSINESS OWNERS

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Abstract:

One of the key features of Swayam Education is its emphasis on practical, hands-on learning. The platform offers a range of interactive tools and resources that allow students to apply what they've learned in real-world scenarios. This approach helps to prepare young entrepreneurs for the challenges they will face when starting and growing their businesses.

Overall, Swayam Education provides a valuable resource for young entrepreneurs looking to build successful businesses. Its flexible curriculum and hands-on approach make it a valuable tool for anyone looking to acquire the skills and knowledge necessary to succeed in the world of business.

Swayam Education is a comprehensive platform designed to support young entrepreneurs in their pursuit of success. It provides a range of services and resources to help budding entrepreneurs acquire the skills and knowledge necessary to build successful businesses.

Introduction:

Entrepreneurship has become an integral part of the modern economy, providing opportunities for individuals to create and run their own businesses. Young entrepreneurs, in particular, bring a unique energy, creativity, and perspective to the marketplace, which is essential for the growth and success of small businesses. However, starting and running a successful business can be challenging, especially for individuals who lack the necessary resources, support, and guidance. This is where Swayam Education comes in, offering a comprehensive support system to young entrepreneurs and helping them turn their ideas into realities.

Swayam Education is a non-profit organization that aims to provide young entrepreneurs with the tools and resources they need to start and grow their businesses. It provides a comprehensive range of services, including training programs, mentorship, and access to funding. The organization's mission is to empower young entrepreneurs and help them achieve their full potential.

One of the core components of Swayam Education's support system is its training programs. These programs are designed to provide young entrepreneurs with the skills, knowledge, and confidence they need to succeed. They cover a wide range of topics, including business planning, marketing, finance, and leadership, and are taught by experienced entrepreneurs and business professionals. Participants also have the opportunity to network with other entrepreneurs and gain valuable insights into the challenges and opportunities of starting and running a business.

In addition to its training programs, Swayam Education also provides mentorship to young entrepreneurs. Mentors are experienced business leaders and entrepreneurs who have a wealth of knowledge and experience to share. They work one-on-one with entrepreneurs, providing guidance, support, and advice as they navigate the challenges of starting and growing their businesses. Mentors also provide entrepreneurs with a valuable network of contacts and help them make connections with potential customers, investors, and suppliers.

Swayam Education also provides access to funding for young entrepreneurs. The organization has established partnerships with various financial institutions and investors to provide entrepreneurs with access to the capital they need to start and grow their businesses. This can be particularly valuable for young entrepreneurs who may not have a strong credit history or access to traditional forms of funding. Swayam Education also provides guidance and support to entrepreneurs as they navigate the funding process, helping them secure the financing they need to succeed.

In addition to its core programs, Swayam Education also provides a range of additional resources and support to young entrepreneurs. These include business incubators, co-working spaces, and access to a network of experts and resources. These resources are designed to help entrepreneurs develop their businesses and overcome the challenges they face as they grow.

The impact of Swayam Education's support system for young entrepreneurs has been significant. The organization has helped hundreds of young entrepreneurs turn their ideas into successful businesses by providing them with the skills, knowledge, and resources they need to succeed. Many of these businesses have gone on to create jobs, stimulate local economies, and contribute to the growth and success of their communities.

In conclusion, Swayam Education is a critical support system for young entrepreneurs, providing them with the tools and resources they need to start and grow their businesses. Its comprehensive range of services, including training programs, mentorship, and access to funding, has helped hundreds of young entrepreneurs achieve

their goals and realize their full potential. By providing young entrepreneurs with the support they need, Swayam Education is helping to drive economic growth, create jobs, and build stronger communities.

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Swayam Education: A Support to Young Entrepreneurs

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Abstract:

The mentorship programs offered by Swayam Education allow young entrepreneurs to connect with experienced professionals who provide guidance and advice on how to navigate the challenges of running a business. These programs help entrepreneurs develop their networks, gain insights into the industry, and develop strategies for growth.

Swayam Education is a valuable resource for young entrepreneurs who are looking to start or grow their businesses. Its comprehensive educational programs and mentorship opportunities provide the support and guidance that young entrepreneurs need to succeed in their ventures. With Swayam Education, entrepreneurs can gain the knowledge, skills, and connections they need to turn their business ideas into successful ventures.

Swayam Education is a platform that provides support to young entrepreneurs by offering them various educational resources and mentorship programs. The platform is designed to help entrepreneurs develop their skills and knowledge, enabling them to create successful businesses. Through its online courses, Swayam Education provides entrepreneurs with the necessary tools to enhance their knowledge in various fields, including business management, marketing, finance, and entrepreneurship.

Introduction:

In recent years, the world has seen a massive rise in the number of young entrepreneurs who are setting up their businesses with the aim of making a difference in their respective industries. This trend is mostly driven by the current generation's quest for independence and the desire to bring their innovative ideas to life. However, starting a business is no easy feat and requires a solid foundation in the fields of business and entrepreneurship. This is where Swayam Education comes into the picture.

Swayam Education is an online education platform that provides free and low-cost access to quality education in India. It offers a wide range of courses and programs in entrepreneurship and business, making it an ideal support system for young entrepreneurs who are looking to start their businesses. The platform provides students

with the skills and knowledge they need to become successful entrepreneurs and also helps them understand the intricacies of running a business and making it a success.

One of the biggest advantages of Swayam Education is its online nature. This means that students can access the platform from anywhere in the world, at any time, and from any device. This is especially important for young entrepreneurs, who are often busy with their businesses and may not have the time to attend traditional classroom-based courses. By having the ability to access the course materials online, young entrepreneurs can fit their education into their busy schedules and study at their own pace.

Another advantage of Swayam Education is its cost-effectiveness. The platform offers most of its courses for free, with the option to pay for a certificate of completion. This makes it accessible to students who may not have the financial resources to attend traditional universities or business schools. This cost-effectiveness is especially important for young entrepreneurs who may be starting their businesses on a shoestring budget and need to allocate their resources wisely.

The curriculum of the courses offered on Swayam Education is designed to meet the needs of young entrepreneurs. The courses cover a wide range of topics, including business strategy, marketing, financial management, and leadership. These courses provide students with a solid foundation in the field of entrepreneurship and help them develop the skills they need to run a successful business.

In addition to providing students with the knowledge they need to start and run a successful business, Swayam Education also offers them a supportive community. Through its online forums, students can connect with other entrepreneurs and business professionals, share their experiences, and learn from one another. This sense of community is especially important for young entrepreneurs who may be feeling overwhelmed and uncertain about starting their businesses. By connecting with others who have gone through the same experience, students can gain the support and encouragement they need to succeed.

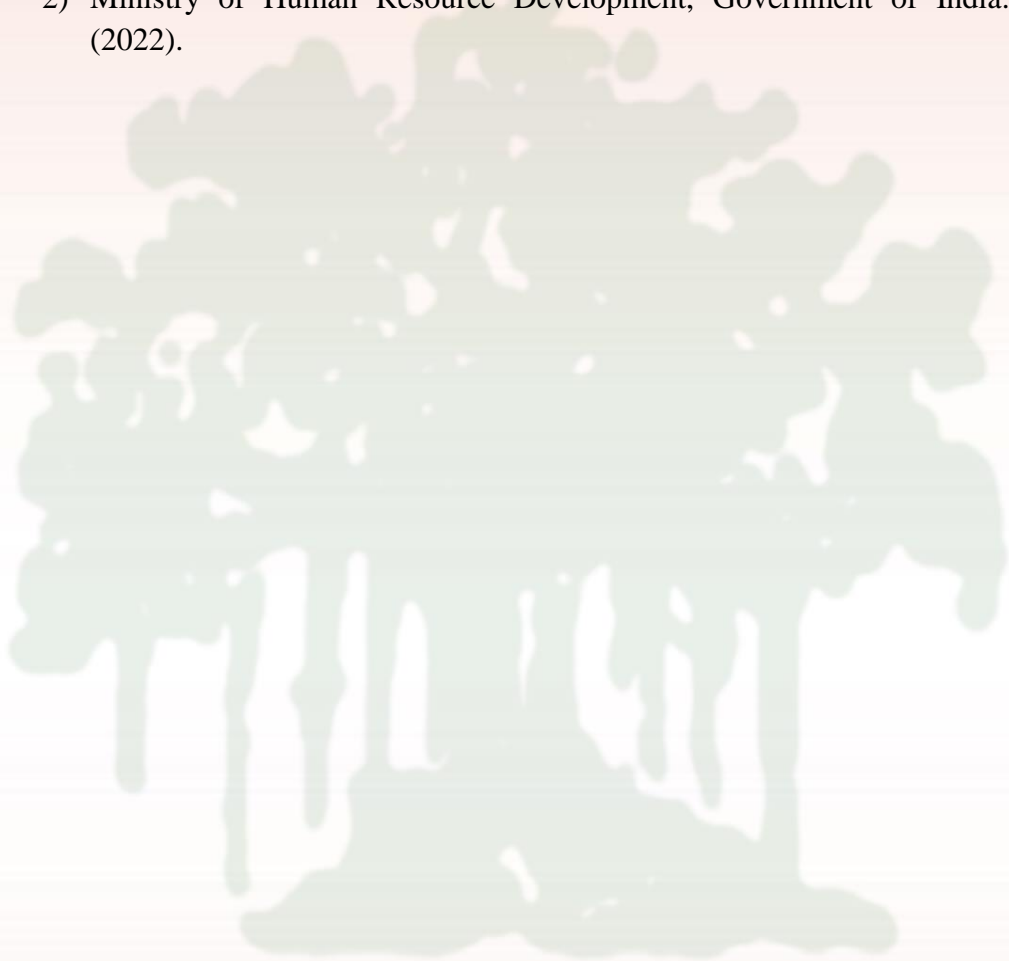
Swayam Education is also constantly evolving to meet the needs of its students. The platform regularly updates its course offerings to ensure that students have access to the latest information and trends in entrepreneurship and business. This ensures that students are equipped with the knowledge and skills they need to succeed in today's rapidly changing business landscape.

In conclusion, Swayam Education is an invaluable resource for young entrepreneurs who are looking to start their businesses. The platform provides students with the skills and knowledge they need to become successful entrepreneurs and also helps them

understand the intricacies of running a business and making it a success. With its cost-effectiveness, online nature, and supportive community, Swayam Education is a support system that young entrepreneurs cannot afford to ignore.

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OPEN EDUCATION FOR THE DIGITAL AGE: A LOOK AT THE IMPACT OF ONLINE LEARNING

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Abstract:

Open education has revolutionized the traditional education system, providing access to quality education through online platforms. The digital age has enhanced open education by providing vast opportunities for learners to acquire knowledge and skills online. This review article examines the impact of online learning on open education in the digital age. It discusses the benefits of online learning, its challenges, and its prospects for the future. This review article concludes that online learning is an essential aspect of open education in the digital age.

Keywords: open education, digital age, knowledge

Introduction:

Open education has transformed the traditional education system, providing learners worldwide with access to quality education. With the advent of the digital age, open education has expanded its reach through online platforms, enabling learners to acquire knowledge and skills beyond traditional classrooms. Online learning has become an integral part of open education, and its impact has been significant. This review article aims to examine the impact of online learning on open education in the digital age.

Benefits of Online Learning:

Online learning has several benefits, making it an essential aspect of open education in the digital age. Firstly, online learning provides access to quality education, especially for learners who cannot attend traditional classrooms due to distance or time constraints. Secondly, online learning offers flexibility, enabling learners to learn at their own pace and convenience. Thirdly, online learning provides a platform for collaborative learning, enabling learners to interact and exchange ideas

with peers and educators worldwide. Finally, online learning reduces the cost of education, making it affordable for learners worldwide.

Challenges of Online Learning: Online learning also presents several challenges that impact open education in the digital age. Firstly, online learning requires self-motivation, discipline, and time management skills, which not all learners possess. Secondly, online learning requires access to technology and reliable internet connectivity, which is a challenge in many parts of the world. Thirdly, online learning may not provide the same level of social interaction as traditional classrooms, which can impact the quality of learning.

Future Prospects: The future prospects of online learning in open education are bright. With the advancement of technology, online learning is becoming more interactive, engaging, and personalized, providing learners with a better learning experience. Furthermore, online learning is providing new opportunities for learners to acquire skills and knowledge that are relevant in the digital age. The use of artificial intelligence and machine learning in online learning is transforming the way learners acquire and apply knowledge.

Conclusion:

In conclusion, online learning is an essential aspect of open education in the digital age. It provides access to quality education, flexibility, collaboration, and affordability, making it an attractive option for learners worldwide. However, online learning presents challenges, such as self-motivation, access to technology, and social interaction. The future prospects of online learning in open education are promising, and advancements in technology are providing new opportunities for learners to acquire knowledge and skills relevant in the digital age.

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EXPLORING THE PROS AND CONS OF OPEN AND DISTANCE EDUCATION: A COMPREHENSIVE ANALYSIS

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Abstract:

In recent years, open and distance education have become increasingly popular, particularly due to advancements in technology. This paper provides a comprehensive analysis of the pros and cons of open and distance education. The analysis includes a review of the benefits and challenges associated with this form of education, as well as a discussion of the different types of open and distance education available. The paper also explores the role of technology in open and distance education and examines the effectiveness of this form of education in different contexts. The paper concludes by highlighting the need for further research into the benefits and challenges of open and distance education.

Introduction:

Open and distance education, also known as e-learning, is a form of education that uses technology to provide learning opportunities to individuals who are not able to attend traditional classroom settings. This form of education has become increasingly popular in recent years, particularly due to the increasing use of technology in education. Open and distance education has several benefits, such as flexibility, convenience, and accessibility, but it also has its challenges, such as the lack of face-to-face interaction, technological barriers, and the need for self-discipline. This paper provides a comprehensive analysis of the pros and cons of open and distance education, with a focus on the different types of open and distance education available, the role of technology in open and distance education, and the effectiveness of this form of education in different contexts.

Types of Open and Distance Education:

Open and distance education can take various forms, including online learning, blended learning, correspondence courses, and massive open online courses (MOOCs).

Each of these forms of open and distance education has its benefits and challenges. Online learning, for instance, provides learners with the flexibility to learn at their own pace and on their own schedule. However, online learning may not be suitable for all learners, particularly those who require face-to-face interaction. Blended learning, on the other hand, combines face-to-face interaction with online learning, providing learners with a more balanced learning experience. Correspondence courses, which involve the exchange of course materials by mail, are still used today but are becoming less popular due to advancements in technology. MOOCs, which are free online courses that can be taken by anyone, have gained popularity in recent years but have been criticized for their lack of quality control and high dropout rates.

Role of Technology in Open and Distance Education:

Technology has played a significant role in the growth and development of open and distance education. Technology has made it possible for learners to access educational resources from anywhere in the world, at any time. Technology has also enabled learners to interact with instructors and other learners through online forums, video conferencing, and other tools. However, technology can also be a barrier to learning for some learners, particularly those who do not have access to or are not familiar with technology.

Effectiveness of Open and Distance Education:

The effectiveness of open and distance education depends on several factors, including the type of learning environment, the learner's motivation and self-discipline, and the quality of the course materials and instructional design. Research has shown that open and distance education can be just as effective as traditional classroom-based education, particularly in certain contexts. However, there are also studies that suggest that open and distance education may not be suitable for all learners, particularly those who require face-to-face interaction or who lack self-discipline.

Pros of ODE:

- i. **Flexibility:** ODE offers students the flexibility to learn at their own pace and schedule. This flexibility is particularly beneficial to students who have other commitments, such as work and family.
- ii. **Accessibility:** ODE provides access to education to individuals who may not have the opportunity to attend traditional classroom-based education due to geographic, financial, or personal constraints.
- iii. **Customization:** ODE allows students to customize their learning experience by selecting courses and programs that align with their interests, needs, and goals.

- iv. Cost-effective: ODE is often more cost-effective than traditional classroom-based education. It eliminates the need for expensive physical infrastructure and reduces costs associated with commuting, housing, and other expenses.

Cons of ODE:

- Lack of interaction: One of the main drawbacks of ODE is the lack of face-to-face interaction with instructors and peers. This lack of interaction can lead to feelings of isolation and hinder collaborative learning.
- Limited resources: ODE may not provide students with access to the same resources as traditional classroom-based education. For example, students may have limited access to laboratories, libraries, and other physical resources.
- Self-discipline: ODE requires a high level of self-discipline and motivation to succeed. Students who lack these qualities may struggle to complete courses and programs.

Conclusion:

In conclusion, ODE has several advantages and disadvantages. The flexibility, accessibility, customization, and cost-effectiveness of ODE make it an attractive option for students seeking convenient and affordable education options. However, the lack of interaction, limited resources, and need for self-discipline are significant challenges that students must consider before pursuing ODE. Ultimately, the choice of whether to pursue ODE or traditional classroom-based education should be based on individual preferences, needs, and goals.

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IMPACT OF NEP 2020 ON TEACHER EDUCATION

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Abstract:

A persuasive and ambitious plan for education reform in India is set forth in the National Education Policy 2020 (NEP). Yet as others have pointed out, the promise of the NEP won't be achieved without coordinated action. Prioritization is essential because the new policy is comprehensive. Expanding access to early childhood care and education (ECCE), improving foundational literacy and numeracy in primary school and developing a regular, national A sample-based survey of learning outcomes is one of the critical elements of the policy that the centre should prioritize in order to realize the NEP's vision. We also make the general notion that because education is a concurrent topic, the federal government should offer direction and financing, but leave specifics up to the states. In this article, we offer suggestions for how governments may set priorities and cooperate to address one of India's top urgent issues: assisting its citizens in realizing their full potential. A multidisciplinary approach to education aids students in choosing from a variety of subjects.

Keywords: New Education Policy, concurrent topic, multidisciplinary approach, literacy, early childhood care and education

Introduction:

Education is essential for realizing one's potential, building a decent society, and promoting human development. Making sure that everyone has access to a high-quality education is the key to India's continued progress and leadership on the global stage in terms of economic growth, social justice and equality, scientific advancement, national integration, and cultural preservation. Through universal high-quality education, our nation's many skills and resources can be developed and used to the best advantage of each individual, the society, the country, and the world. Over the next ten years, India will have the largest population of youth, and the country's future will depend on our ability to provide them with opportunities for high-quality education.

The landscape of knowledge is changing quickly on a global scale. Many "low-skilled" jobs could be replaced by machines due to dramatic scientific and technological advancements like the rise of "big data", "machine learning", and "artificial intelligence". As a result, there will be a growing demand for skilled workers with expertise in "math", "computer science", and "data science," as well as cross-disciplinary skills in the natural and social sciences as well as the humanities.

The way we meet the needs of the world for "energy", "water", "food", and "sanitation" will significantly change as a result of climate change, rising pollution, and the depletion of natural resources. This will once again lead to a need for new skilled workers, particularly in the fields of "biology", "chemistry", "physics", "agriculture", "climate science", and "social sciences".

The increasing frequency of "epidemics" and "pandemics" will necessitate joint research in managing infectious diseases and vaccine development, and the ensuing socioeconomic challenges will increase the need for interdisciplinary education. As India grows closer to being a developed nation and one of the three greatest economies in the world, there will be a rising demand for "humanities" and "arts".

Children must not only study, but more crucially, "learn how to learn", given the rapidly changing nature of the job market and the global environment. Hence, education needs to shift away from teaching knowledge and towards teaching students how to think critically, solve issues, be creative and "multidisciplinary", and how to innovate, adapt, and take in new information in domains that are new and evolving. To make education more "immersive", "comprehensive", "integrated", "learner-centered", "inquiry-driven", "discovery-oriented", "discussion-based", "adaptable", and, of course, "fun", "pedagogy" must change.

In addition to "science" and "mathematics", the curriculum must also cover the fundamentals of the "humanities", "games", "sports", "fitness", "languages", "literature", "culture", and "values" in order to help students grow in all facets of their learning and broaden their understanding of the world. "Education" must help students develop their "moral" character and help them become "ethical", "logical", "empathetic", and "caring" people while also preparing them for rewarding careers.

The aim for India's future educational system is laid forth in the "National Education Policy of India 2020" (NEP 2020), which was adopted by the "Union Cabinet of India" on July 29, 2020. The preceding "National Policy on Education, 1986" has been replaced. The goal of the strategy is to create an "education system" anchored in Indian culture that directly transforms India by offering high-quality education to everyone, making India a superpower in the field of knowledge.

A Brief Overview

The NEP 2020 has taken the place of the NEP 1986. A committee headed by former cabinet secretary "T. S. R. Subramanian" began the consultation phase for the "new education policy" in January 2015. The drafting NEP was submitted in 2019 under the leadership of former "Indian Space Research Organization" (ISRO) chairman "Krishnaswami Kasturirangan," based on the committee's report from June 2017. The NEP was then proclaimed by the "Ministry of Human Resource Development," and additional public discussions were held after that.

Higher Education:

1. Education that is holistic and cross-disciplinary in undergraduate programs
2. The M.Phil. program will end
3. In addition to the JEE and NEET, the NTA will conduct the entrance exams for admission to universities.
4. HECI was established to oversee higher education. There will be four independent variables in the HECI: GEC, HEGC, NHERC, and NAAC.

Concept of Teacher Education:

"A program of education, research, and training of persons to teach from pre-primary to higher educational levels," according to the NCTE, defines teacher education. "Teacher education is composed of professional skills, pedagogical theory, and teaching abilities."

Teacher Education:

Since "teacher education" calls for "multidisciplinary" inputs, high-quality content education, and "pedagogy," all "teacher education" programs must be conducted inside composite "multidisciplinary" institutions. To that end, all "multidisciplinary" universities and colleges will strive to create education departments that will work in conjunction with other departments, such as those for "psychology," "philosophy," "sociology," "neuroscience," "Indian languages," the "arts," "music," "history," "literature," "physical education," "science," and "mathematics," to run "B.Ed. programs" in addition to carrying out cutting-edge research on a variety of education-related topics. Also, by the year 2030, all standalone TEIs must change their status to "multidisciplinary" institutions in order to provide the "4-year integrated teacher preparation program".

By 2030, all teachers must have a four-year integrated B.Ed., which includes student teaching at nearby schools.

For those with prior bachelor's degrees in other specialized disciplines, a 2-year B.Ed.

For individuals who have earned a master's degree in a specialization or the equivalent of a four-year multidisciplinary bachelor's degree, 1 year of B.Ed.

"Learner-centered" and "collaborative" learning, the use of educational "technology," "multi-level teaching and evaluation," "teaching children with disabilities," "educating children with particular "interests" or "skills," and teaching children with those interests or talents are all topics covered in all B.Ed. programs.

Empowering Teachers:

A complete teacher requirement planning and forecasting exercise must be carried out by each state on the basis of technology. Teachers should have more authority in

selecting elements of pedagogy for classroom instruction, the statement reads. Teachers should have access to career progression. Teachers will be given access to academic leadership posts. Teacher National Professional Standards Programs for teachers' continuing professional development world-class infrastructure at institutions

The draft highlights the following points in Chapter 15:

- 15.1 The development of a pool of educators who will mold the future generation depends on teacher education. The process of preparing teachers calls for the development of diverse perspectives and knowledge, the construction of attitudes and values, and the practice of teaching under the guidance of the most qualified mentors. In addition to being knowledgeable about the most recent developments in education and pedagogy, teachers must have a solid foundation in Indian values, languages, knowledge, ethos, and traditions, particularly tribal traditions.
- 15.2. The Justice J. S. Verma Commission, which was established by the Supreme Court in 2012, reported that the bulk of stand-alone TEIs—more than 10,000 in total—do not even seek to provide meaningful teacher education and are instead effectively engaged in the business of selling degrees. In fact, regulatory measures have had the unintended consequence of slowing the rise of excellence and innovation in the sector since they have not been able to stop systemic fraud or enforce the most fundamental quality standards. Thus, it is urgently necessary to revitalise the industry and its regulatory structure through drastic action in order to increase standards and bring back the teacher education system's integrity, credibility, effectiveness, and high quality.
- 15.3. The Regulatory System shall be empowered to take strict action against substandard and dysfunctional teacher education institutions (TEIs) that do not meet basic educational criteria, after giving one year for remedy of the breaches, in order to improve and reach the levels of integrity and credibility required to restore the prestige of the teaching profession. By 2030, there will only be programs in place that are integrated, multidisciplinary, and educationally sound.
- 15.4: All teacher education programs must be carried out inside composite multidisciplinary institutions since teacher education requires multidisciplinary inputs and education in high-quality content as well as pedagogy. To this end, all multidisciplinary universities and colleges will work to establish education departments that will collaborate with other departments, such as those for psychology, philosophy, sociology, neuroscience, Indian languages, the arts, music, history, literature, physical education, science, and mathematics, to run B.Ed. programs in addition to conducting cutting-edge research on a variety of topics related to education.

Also, by 2030, all standalone TEIs must become interdisciplinary institutions in order to offer the 4-year integrated teacher training program.

- 15.5. By 2030, such multidisciplinary HEIs' 4-year integrated B.Ed. programs will be the required degree for instructors in public schools. The 4-year integrated B.Ed. will be a holistic dual-major degree, with majors in education and another specialty area such as language, history, music, mathematics, computer science, chemistry, economics, art, physical education, etc. In addition to teaching cutting-edge pedagogy, the teacher education program will give students a foundation in sociology, history, science, psychology, early childhood care and education, basic literacy, basic numeracy, and an understanding of India and its culture. Students with a Bachelor's degree in a specific field of study may enroll in the 2-year B.Ed. program offered by the same HEI that offers the 4-year integrated B.Ed. program. Those who have completed a 4-year undergraduate degree in a specialized field may also be eligible for a 1-year B.Ed. program. To draw exceptional applicants to the 4-year, 2-year, and 1-year B.Ed. programs, scholarships for deserving students will be offered.
- 15.6. A variety of specialists in education, related fields, and specialized subjects will be made available by HEIs with teacher education programs. Each higher education institution will collaborate closely with a network of public and private schools where future teachers will student-teach in addition to taking part in other activities like community service, adult and vocational education, etc.
- 15.7. Admission to pre-service teacher preparation programs must be through appropriate subject and aptitude tests administered by the National Testing Agency, which must be standardized while taking into account the nation's linguistic and cultural diversity. This is done in order to maintain uniform standards for teacher education.
- 15.8. The faculty profile for departments of education will inevitably strive to be varied, but experience in teaching, the field, or research will be highly regarded. To strengthen the multidisciplinary education of teachers and provide rigor in conceptual development, teacher education institutions will recruit and retain faculty with training in social science fields that are directly related to school education, such as psychology, child development, linguistics, sociology, philosophy, economics, and political science.
- 15.9. Throughout their doctoral training time, all new Ph.D. applicants, regardless of discipline, will be expected to complete credit-based courses in teaching, education, pedagogy, and writing pertaining to their chosen Ph.D. subject. Since a large number of research scholars will go on to become teachers or

public representatives or communicators of their chosen subjects, exposure to pedagogical techniques, curriculum design, reliable evaluation systems, communication, and other related topics will be ensured. A minimum number of hours of practical teaching experience, acquired through teaching assistantships and other opportunities, will also be required of Ph.D. candidates. As a result, Ph.D. programs at colleges across the country will be reoriented.

15.10. College and university teachers will continue to receive in-service continuous professional development through current institutional arrangements and ongoing initiatives; these will be strengthened and significantly expanded to meet the demands of improved teaching-learning processes for quality education. In order to deliver standardized training programs to a large number of teachers quickly, the usage of technological platforms like SWAYAM and DIKSHA for online teacher training will be promoted.

15.11. A National Mission for Mentoring shall be developed with a sizable pool of exceptional senior/retired faculty, including those who can teach in Indian languages, who would be eager to offer short- and long-term mentoring and professional support to university/college teachers.

(Source: PDF of NEP 2020, the New National Education Policy, on the Ministry of Education of India website.)

Challenges:

Preparing a national curriculum that is consistent throughout all pre-service teacher education levels. Designing the teacher education curriculum in accordance with school education at various levels. Determining the institutions' capacity to assign centres for various stages of teacher training. Selecting highly effective teacher educators for teacher training. Preparing future and current teachers with 21st-century abilities. Teachers are receiving training to meet the new challenges outlined in NEP 2020. Educating and supplying teachers with the necessary tools for their evolving tasks modifying teacher educators' attitudes in accordance with shifting roles and responsibilities at multidisciplinary institutions enticing deserving candidates to various levels of teacher-training programs. Linking local schools to multidisciplinary training institutions for pre-service training programs' school experiences, internships, and mentoring Training the trainees to secondary school level in accordance with the standards for vocational education It is necessary to change the focus of assessment procedures from material to competencies while putting an emphasis on everyone's optimal learning and growth at both the school and teacher education levels. There is a need to modify the assessment process for students in accordance with ongoing, thorough evaluation and competency-based assessment. Tests of higher-order skills

must be administered to all teacher candidates in order to encourage their learning and development (analysis, critical thinking, and creativity with conceptual clarity).

Recommendations for teacher education are as follows:

There needs to be a minimum standard for teacher educators at institutions with several disciplines.

- The training facilities must be set aside individually for the primary, intermediate, secondary, and preparatory levels.
- To provide quality training for those who want to become teachers, attention must be paid to ensuring the safety of certified teachers in government, assisted, and unaided institutions.
- Direct, practical teacher training programs must take precedence over emphasizing online teacher training programs.
- Equal weight must be given to curricular, co-curricular, and extracurricular activities during teacher training and assessment across all teacher training programs.
- To improve teachers and teacher educators, research opportunities must be made available and promoted.
- To encourage research among teachers and teacher educators, the DSERT should establish or improve its research and development branch.
- If prospective teachers want to increase their knowledge of the relevant subjects or abilities, they should consider updating their status based on their completion of online courses from organizations like MOOC and NPTEL.
- To further the policy of fairness and access to education, special consideration must be given to teacher aspirants from rural, underprivileged, tribal, female, and other underrepresented social groups.
- Differently-abled teacher candidates should be given preference for teacher education if at all practicable.
- The teacher development program should honor Indian history while serving as a tool for achieving national objectives and people's aspirations.
- In order to satisfy the demands of future students in this setting, this new curriculum should familiarize teachers with the social, cultural, and personal values of native communities.
- Benchmarks must be established together with study, integration, and practice in order to develop appropriate curricula for qualitative teacher education and training at four levels.
- To create a curriculum framework for teacher education, the departments of higher education and school education must collaborate.

- To attract exceptional applicants to B.Ed. programs, a scholarship program for deserving students needs to be implemented. This may be carried out by the relevant state governments or UTs.
- Every teacher education institution should be evaluated and granted accreditation by a national organization that was established specifically for that purpose.
- A nationwide mentoring mission ought to be established by the Department of Higher Education. The primary objective of this mission is to mentor excellent senior faculty members who are retiring in order to provide mentoring and professional assistance to teacher educators.
- In order for teacher educators at various levels to share ideas for creative practices, subject-specific networking must be established.
- Exceptional educators with a track record of management and leadership accomplishments would receive training over time to fill academic leadership roles in schools, school complexes, BRCs, DIETs, CTEs, and DSERT.
- Another issue that needs to be considered in terms of professional standards, professional conduct, and professional obligations is professionalism.
- The main difficulty for NEP 2020 is to co-opt professionals from business, industry, or other vocational backgrounds and train them at the secondary school level in accordance with the requirements for vocational education.

Conclusion:

Teachers serve as the community's beacons of light and compass. They need to be honored as acharyas and gurus. It goes without saying that educators must develop to the point where they are respected by all facets of society. To do this, there is an urgent need to raise the standard of teachers. It is crucial to talk about how much progress has been made in primary and middle education in rural areas. Although TET scores are used to determine teacher appointments in government schools, the success rate is not particularly promising. In light of this, it is essential to choose the best applicants for teaching positions, and this decision should be made completely based on the candidates' enthusiasm for and interest in the subject matter. Therefore, NEP 2020's efforts would be in vain.

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NATIONAL EDUCATION POLICY: APPROACH TO TEACHER EDUCATION

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Abstract

Education plays an important role in the development of any nation, and it totally depends on the quality of teachers. Nowadays, teacher jobs have become more challenging in light of NEP 2020. Well-structured and well-planned teacher education programs are required today. The teacher plays an important role in setting the objectives of education. To achieve the outcome of enhanced quality at all levels of education, the central and state governments have been focusing on quality at all levels of education. So teacher education is an important part of NEP 2020. The present paper focuses on approaches to teacher education from the perspective of NEP 2020.

Key Words: Teacher, Student, Methods, Education, Multidisciplinary, NEP 2020

Introduction

A New Education Policy aims to foster inclusive participation and a holistic approach, making 'India a global knowledge superpower'. It is a progressive move towards a more scientific approach to education. NEP 2020 has the aim of introducing several changes in the Indian education system from the school level to the college level. To bring 2 crore out-of-school children back into mainstream society through an open schooling system. The introduced structure will help to cater to the ability of the child at various stages of cognitive development as well as social and physical awareness. If this policy is truly implemented, the new form can bring tremendous change to the Indian education system.

Approach to Teacher Education:

1. Multidisciplinary Colleges

A holistic and multidisciplinary education would aim to develop all abilities of human beings—intellectual, social, physical, emotional, and moral—in an integrated manner. Multidisciplinary education is a type of educational plan that brings together multiple disciplines to create a holistic learning experience. Multidisciplinary education, if implemented in schools and colleges, allows students to gain a profound understanding of the subject matter through the lens of different disciplines. This

approach can develop creative thinking, critical thinking, cooperation, and communication skills. By 2030, teacher education will be included in multidisciplinary colleges and universities.

2. Establishment of education departments in all colleges and universities.

To establish departments of excellence in all multidisciplinary colleges and universities for quality teacher education by 2030. It will award a B.Ed., M.Ed., and Ph.D. degree in education. Departments in languages, literature, music, philosophy, art, dance, theatre, education, mathematics, statistics, pure and applied sciences, sociology, economics, sports, translation and interpretation, etc. will be established and strengthened at all higher educational institutes (HEIs).

3. 4Year integrated B.Ed. Degree

By the year 2030, the minimum qualification for teaching would be a 4-year integrated B.Ed. degree. The B.Ed. course will be 4 years, 2 years, and 1 year. The 2-year B.Ed. course will be required for those who have obtained a 4-year bachelor's degree in a specific discipline. The 1-year B.Ed. course will be for those who have obtained a 4-year bachelor's degree or master's degree in a specific discipline. All these B.Ed. degrees can be awarded only by recognized special education institutions offering a 4-year integrated B.Ed. The 4-year program may also lead to a degree 'with research' if the student completes a rigorous research project in their major areas of study as specified by the HEI.

4. Use of the latest and most reliable technology

Training in all the latest technologies will be provided in all B.Ed. courses. These include pedagogy, multi-level teaching and evaluation, teaching children with disabilities, teaching children with special interests and talents, using educational technologies, and learner-centered and collaborative learning. Good higher education must aim to develop good, thoughtful, all-rounded, and creative minds. It must enable an individual to study one or more specialized areas of interest at a deep level and also develop character, ethical and intellectual curiosity, scientific temper, and creativity, a spirit of service, and 21st century capabilities across a range of all disciplines, like the sciences, social sciences, arts, humanities, and languages, as well as professional, technical, and vocational subjects. The New Education Policy recommends creating a national repository of high-quality resources on foundational numeracy and literacy and making them available on DIKSHA (Digital Infrastructure for Knowledge Sharing). For this, it suggests schools leverage technological innovations to aid teachers and transcend language barriers between students and teachers.

5. Short-term teacher education program

Under this, some special short-term local teacher education programs will be available on the school campus. In this local business, knowledge and skills like local art, music, agriculture, sports, etc. will be promoted. For this purpose, eminent local persons will be deputed to teach as master instructors in the school's premises.

6. Construction of a new NCFTE

To prepare a new and comprehensive National Curriculum Framework for teacher education based on the principles of the new education policy 2020 by NCTE in consultation with NCERT. It will be available in all regional languages. It will be revised every 5 to 10 years.

7. Use of innovative and best methods

Many subject-specific teaching methods are being used at the international level. To use new, best teaching methods from different methods only after the suggestion of NCERT. To promote multilingualism, the teaching of all languages will be enhanced through innovative and experiential methods, including through gamification and apps, by weaving in the cultural aspects of the languages, such as films, theatre, storytelling, poetry, and music. *Our education system should now move towards critical and innovative thinking and problem solving and place particular emphasis on the development of the creative potential of each individual. Proper implementation of these reforms will transform India into a global knowledge superpower in the future.*

8. Action against irresponsible teacher education institutions to take action against substandard and dysfunctional teacher education institutions not fulfilling the academic norms to restore the prestige of the teaching profession and improve the level of credibility.

Teacher Recruitment and Employment:

For recruitment in private and government schools, the teacher must qualify through TET, give a demonstration class, pass the interview, and have knowledge of the local language(s). The NEP 2020 provides:

- **Teacher Eligibility Tests (TETs)** will now be extended to cover teachers across all the new stages (foundational, preparatory, middle, and secondary) of school education.
- For subject teachers, **TET scores** as well as **NTA** test scores in the corresponding subjects will also be considered for recruitment.
- NEP 2020 promotes the idea of recruiting teachers to a school complex and sharing them across the group of schools to deal with the shortage of teachers,

particularly in music, dance, art, craft, counseling, coaching, vocational education trainers, classical language teachers, social workers, technical staff, and maintenance staff.

- The NEP 2020 also encourages school complexes to hire local eminent persons or experts as ‘master instructors’ in various subjects, such as traditional local arts, vocational crafts, entrepreneurship, agriculture, etc., to meet the need for teachers to teach the newly introduced classical languages and vocational and skill subjects.

Conclusion:

The new education policy is a good policy as it aims to make the education system holistic, flexible, and multidisciplinary to meet the needs of the 21st century. The policy seems ideal in many ways, but it is the implementation that holds the key to success. It is the responsibility of our society and nature to produce excellent teachers. It is our duty to get the best teachers through the B.Ed. and M.Ed. programs; there should not be any compromise with the quality. We must encourage the geniuses, motivated young men and women, to enter the teaching field. There is an urgent need to improve the quality of teachers in order to achieve their goal.

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IMPLEMENTATION OF NEP 2020 FOR TEACHER EDUCATION

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Abstract:

In NEP 2020, the teachers' education is embedded for the overall development of teachers as well as students, so that the students get the lifetime benefit of their skilled education through the new education systems. Through this policy, the teachers are making skilled students through their knowledge by acquiring updated versions of teaching and other skills. Under every teacher, students get perfect knowledge of this specific subject or course. The holistic development, skills, and other educational systems make them developed. In the teaching field, teachers can change through updated knowledge, language skills, and other skills.

NEP covers all the things related to teacher education to get an overall view of the teaching field and other views. For that teacher's education, basic educational conclusions or theories are drawn. For teachers' education and maintaining standards through skills, educational tools, language, knowledge, and changing their standards through education.

Keywords: teacher education, skills, changing behavior, learning, and reaching revolution.

Introduction:

India is the world's largest country, and the majority of languages, skills, and culture have been adopted here over time. This culture is transferred from one generation to another through their languages, techniques, and other things that are involved in the transfer medium. In fact, it becomes really important that the focus be on education and skill development, which are important for generational development. Education is the necessity for upcoming generations to mould or update their knowledge to grow and stand up to the world's changing market. This is the necessity that serves as the foundation for many things that are important in both daily and long-term life. It is a prerequisite for developing human potential, creating equity in society, and promoting national development. Following its independence, India implemented or modified three national policies. The first was the national education policy in India in 1968, and the second was adopted in 1986 and revised in 1992.

This policy has the potential to transform the entire educational system by fostering the holistic development of both teachers and students, transforming them into an equitable

and vibrant knowledge society. In NEP 2020, the focus is on the teacher's education to make them skilled and ongoing teachers over time. Through the knowledge-update process, teachers can put their knowledge in front of society, which automatically helps societal changes. Access, quality, affordability, equity, and other issues plague the policy. For equity in the knowledge of all teachers, most HEIs take initiatives to arrange workshops, projects, and seminars to know how NEP is put in front of society to change through teacher education.

Objectives:

- 1 To study the NEP 2020 related to teacher education.
- 2 To get information about interactions between students and teachers.
- 3 To study the holistic development and impact of NEP 2020 on teacher education.

Role of Teacher:

Teachers have the ability to shape the minds of the next generation. They must be passionate, motivated, well qualified, and well trained in the practical's, pedagogy, and contents of the subjects. Teachers also play an important role in the lives of the students in their classroom by applying various activities and involving them. Teachers play the best role in their care by mentoring them from time to time. Beyond that, teachers play many other roles in the classroom. By creating a well-qualified classroom environment and keys for students to focus on study with practical knowledge.

Teaching Knowledge:

Teachers' updating their teaching knowledge is important for professional development, and through the discipline, they create a mirror image in society, changing perceptions of them. They follow the state curriculum throughout the year, which meets state guidelines and disseminates knowledge to the students. They teach in many ways, including lectures, small-group activities, and hands-on learning activities to get proper information and apply knowledge.

Creating a Classroom Environment:

The student and teacher interaction in the classroom is very important to creating a classroom environment. Both of them play an important role in creating a healthy environment by applying their new pedagogies. Teachers and students' interaction is very helpful to creating a classroom environment, and it depends on content. Students get happier when teachers prepare a warm and happy environment in the classroom. They should always give positive reinforcement to students.

Role Modelling:

Teachers are observed by the students every time, and he or she is the role model for students. Students also spend time with their teachers, sharing some things and getting some solutions from them. The teacher becomes a role model for them. The positive and negative effects of teachers may affect them. Teachers not only teach the students but also love and care for them. The teachers are highly respected people in the community and are role models for students and their parents.

Mentoring:

For encouraging them Mentor-mentee communication is important for better development and encouragement. Through the mentoring, students get a better sense of their own potential by applying the mentoring as a natural role. This positive and negative effect on children makes them unhappy. Mentoring encourages students to enjoy learning and assists in building students' confidence and success. By performing well, teachers must be valued, supported, and respected, and both teachers and students make excellent use of the teaching and learning processes. This makes every day safe, comfortable, and inviting in the classroom.

Faculty Who Are Motivated, Energized, and Capable: The success of higher education institutions is dependent on the quality and engagement of their faculty in order to achieve their goals. Over the past several years, various educational initiatives have been introduced to systemize recruitment and career progression, thereby acknowledging the criticality of faculty. To ensure equitable representations from various groups, we are involving them in hiring faculties. Through carrier progression, the faculties can update themselves, and compensation levels for permanent faculty in public institutions have also been substantially increased. For professional development opportunities, various initiatives provide them to the faculty. However, despite various improvements in the status of the academic profession, faculty motivation in terms of teaching, research, and services in HEIs remains far below the desired level.

Due to low faculty motivation levels, various factors must be ensured in order to raise motivation levels and ensure that each faculty member is happy and motivated towards their students, profession, and institution. The policy recommends the following initiatives to achieve the best, most motivated, and most capable faculty in HEIs: The basic step is that all HEIs will be equipped with basic infrastructure and facilities, including clean drinking water, clean working toilets, blackboards, offices, teaching supplies, libraries, labs, and pleasant classroom spaces and campuses. Every classroom shall have access to the latest educational technology that enables better learning experiences.

Because of the student-teacher ratio, adequate interaction with students, research, and other activities run smoothly. The faculty investment increases the output of perfect knowledge education throughout the year.

Conclusion:

After implementation of NEP 2020, teachers and students both get benefited through holistic development, skilful activities, and other points covered to maintain a happy classroom environment. Teacher's education, which creates new things for the development of teachers and career progression, will be reached by the professional development opportunities. Various improvements in teachers' education and the status of the academic profession motivate faculty through it, and in HEIs, this level may get upgraded. The student-to-teacher ratio as well as relations may change, and both go through overall holistic, skilled, and language development and transfer of knowledge from one generation to another.

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प्रादेशिक भाषा, कला व संस्कृतीला प्रोत्साहन देणारे नवीन शैक्षणिक धोरण

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सारांश :

प्रादेशिक भाषेतून शिक्षण दिल्यामुळे शिक्षणाची काठिण्य पातळी कमी होऊन विद्यार्थ्यांच्या मनातील एखाद्या विषयाची भीती असायची ती नाहीशी होईल. त्यामुळे त्या त्या प्रदेशातील बोर्लीना / मातृभाषानाही चांगले दिवस प्राप्त होतील. शिक्षण प्रक्रियेत सहजता येईल व विद्यार्थ्यांची आकलन क्षमता वाढीस लागेल, तसेच कोणतीही संस्कृती ही त्या-त्या प्रदेशातील भाषेतूनच आविष्कृत होत असते. त्या संस्कृतीच्या कलेच्या अभिव्यक्तीचे माध्यम हे ती भाषाच असते. शिवाय भाषा, कला व संस्कृती हे तिनही घटक परस्परपूरक व परस्परावलंबी आहेत. म्हणूनच जर प्रादेशिक भाषेतून शिक्षण दिले गेले तर त्या त्या प्रदेशातील कला व संस्कृतीचे सर्व विद्यार्थ्यांना योग्य प्रकारे ज्ञान होऊन ते आपल्या प्रदेशातील कला व संस्कृतीचे संरक्षण व संवर्धन करतील.

प्रास्ताविक :

आपला देश आज अनेक कारणांनी जगात आपली ओळख निर्माण करून नावारूपाला आलेला आहे. भारताची अनेक अशी खास वैशिष्ट्ये आहेत जी देशाला इतर देशांपासून वेगळे व वैशिष्ट्यपूर्ण बनवतात. याच अनेक विशेषांपैकी एक खास असा विशेष म्हणून भारतीय संस्कृतीचा उल्लेख करता येईल. आपल्या देशाची संस्कृती ही फार प्राचीन, पुरातन असून ती सर्व जगभर प्रसिद्ध आहे आणि आजही ती सर्वश्रेष्ठ अशीच मानली जाते. याचा पुरावा म्हणून आपणाला मोहोजोदडो व हडप्पा या सिंधू संस्कृतीचा उल्लेख करता येईल.

ज्याप्रमाणे ही भारतीय संस्कृती फार प्राचीन आहे तेवढीच भारतीय शिक्षणाची परंपरही जुनी आहे. भारतीय शिक्षणाचा इतिहास पाहावयास गेल्यास आपणाला त्याची मुळे वेदकाळात (ख्रिस्तपूर्व १००० ते ५००) सापडतात. म्हणजेच वेदपूर्वकाळ, वैदिककाळ, बौद्धकाळ, मुस्लिम कालखंड, ब्रिटिश व आधुनिक कालखंड अशी इतरही वेगवेगळ्या कालखंडात आपल्या देशात शिक्षण व्यवस्था अस्तित्वात असल्याचे आढळून येते. त्या काळातही (मर्यादितच वर्गांना का असेना पण) शिक्षण दिले व घेतले जात होते. मात्र कालखंडानुसार, प्रांतानुसार, गरजानुसार व परिस्थितीनुसार हे वेगवेगळ्या स्वरूपाचे वेगवेगळे शिक्षण आपल्या देशातील लोकांना दिले जात होते. म्हणजेच शिक्षण देण्याच्या आपल्या पद्धती या काही ध्येय-धोरणे डोळ्यासमोर ठेवूनच आखल्या जात होत्या असे म्हणावयास येथे वाव आहे. अशा स्वरूपाचे शैक्षणिक धोरण केंद्र सरकारने २०२० मध्ये जाहीर केले त्यामध्ये अनेक नवीन बाबींचा समावेश आहे. त्यापैकीच एक म्हणजे प्रादेशिक भाषा, कला व संस्कृती होय. त्याचाच येथे विचार करणे अभिप्रेत असणार आहे.

नवीन शैक्षणिक धोरण २०२० :

१९८६ नंतर प्रथमच नव्याने सत्तेत आलेल्या केंद्र सरकारने तब्बल ३४ वर्षांनंतर नवीन शैक्षणिक धोरण जाहीर केले. हे धोरण अनेक दृष्टीने महत्त्वपूर्ण व वैशिष्ट्यपूर्ण आहे, असे मानले जाते. या धोरणात शिक्षक आणि विद्यार्थी हे दोन्ही घटक केंद्रस्थानी आहेत. त्यात विद्यार्थ्यांच्या व्यावसायिक गुणांचा विकास होऊन ते व्यवसायिक कौशल्य कशा प्रकारे त्यांना आत्मसात करता येतील यावर भर दिला आहे. याद्वारे नोकरी मागणाऱ्या विद्यार्थ्यांऐवजी व्यावसायिक नागरिक बनवण्याकडे या धोरणाचा कल आहे. ज्याद्वारे देशातील बेकारी कमी होण्याची शक्यता निर्माण होईल, असे प्रथमदर्शनी तरी वाटते. या धोरणाची अंमलबजावणी तंतोतंत आणि काटेकोरपणे झाली तर भारतातील शिक्षणाचा स्तर व दर्जा नक्कीच उंचावेल अशी आशा बाळगण्यास हरकत नाही.

या धोरणात कस्तुरी रंगन समितीचा अहवाल स्वीकारून देशातील केंद्र सरकारने ही भविष्यकालीन योजना जाहीर केली आहे. मागील काही वर्षांत पदवीधर तरुणांच्या बेकारीत वाढ होणे, त्यांच्या हाती कोणतेही कौशल्य नसणे, शिक्षणात गळतीचे प्रमाण वरचेवर वाढणे, शिक्षकांना योग्य मूल्यमापनाची प्रक्रिया नसणे या सर्वच घटकांचा विचार हे नवीन शैक्षणिक धोरण आखताना करण्यात आल्याचे दिसते.

खाजगी शाळांमध्ये वाढविण्यात येणाऱ्या अनियंत्रित शुल्कावर अंकुश लावण्याची शिफारसही या धोरणात आहे. गणित ते पायाभूत कौशल्य विकासावर जास्तीत जास्त भर दिला गेला आहे. तसेच नवीन राष्ट्रीय शिक्षण आयोगाची स्थापनाही करण्याची तरतूद या धोरणात केलेली आहे. हे धोरण अंगणवाडी, बालवाडीपासून ते उच्च शिक्षणापर्यंत लागू होणार असल्याने शिक्षणाचा संपूर्ण आकृतीबंध यात बदलला गेला आहे. इयत्ता पाचवीपर्यंतचे शिक्षण मातृभाषेतूनच देण्यावरच विशेष भर दिलेला आहे. या धोरणात बालकांच्या जडणघडणीचा विचार करून पूर्व प्राथमिक शिक्षणाचा समावेश औपचारिक शिक्षणात केला गेला आहे. त्यामध्ये खेळातून शिक्षण हा मूळ उद्देश आहे. त्यामुळे शिक्षण क्षेत्रातील प्रादेशिक भाषेचे महत्त्व आधोरेखित झाले आहे.

नवीन शैक्षणिक धोरण व भारतीय भाषा :

जगाकडे पाहण्याचा दृष्टिकोन ठरवण्याची क्षमता कोणत्याही भाषेत असते. भाषा आणि ती भाषा बोलण्याची ढब ही व्यक्ती व्यक्तीमधील संबंधावर परिणाम करते. आपल्या भाषेत आपली संस्कृती समावेशित असते. म्हणूनच साहित्य, नाटके, चित्रपट, संगीत इत्यादींच्या माध्यमातून अविष्कारीत होणाऱ्या कलांचा आस्वाद भाषेशिवाय घेता येणे शक्य नाही. "युनेस्कोने १९७ भारतीय भाषा 'संकटग्रस्त' म्हणून घोषित केल्या आहेत. विशेषतः लिपी नसलेल्या विविध भाषा नामशेष होण्याचा धोका आहे."^१ त्यामुळे बोलीभाषांचे संरक्षण व संवर्धन करणे काळाची गरज बनली आहे. म्हणूनच नव्या शैक्षणिक धोरणात इयत्ता पाचवीपर्यंत म्हणजेच प्राथमिक शिक्षणाचे माध्यम म्हणून भारतीय भाषा किंवा मातृभाषेला महत्त्व दिले गेले आहे.

मातृभाषेचा विकास करण्याकरिता भारतीय भाषा, सृजनात्मक लेखन, तौलनिक साहित्य, तत्त्वज्ञान, कला, संगीत या सर्वांचे सशक्त विभाग व कार्यक्रम देशभरात सुरू करून ते विकसित केले जातील."शिक्षणाची उपलब्धता आणि GER वाढवण्यासाठी आणि सर्व भारतीय भाषांची शक्ती, वापर आणि चैतन्य वाढवण्यासाठी व उच्च शिक्षण क्षेत्रातील HEI आणि अधिक कार्यक्रम मातृभाषा / स्थानिक भाषा शिकण्याचे माध्यम म्हणून वापरतील...खाजगी उच्च शिक्षण संस्थांना देखील भारतीय भाषा शिकवण्याचे माध्यम म्हणून वापरण्यासाठी आणि/ किंवा द्विभाषिक कार्यक्रम देण्यासाठी उत्तेजन आणि प्रोत्साहन दिले जाईल"^२ अशी तरतूद या नवीन शैक्षणिक धोरणात केली गेली आहे. त्याचबरोबर अभिजात भाषा, भारतीय भाषा आणि नामशेष होत चाललेल्या बोली भाषांबरोबर सर्व भारतीय भाषांचे जतन आणि प्रचार करण्याचे प्रयत्न या धोरणाद्वारे करणे अभिप्रेत आहे. या सर्वच बाबींवरून असे लक्षात येते की, नवीन शैक्षणिक धोरणानुसार भारतीय भाषांना म्हणजेच त्या-त्या प्रदेशात, राज्यात बोलल्या जाणाऱ्या भाषेला शिक्षणात प्राधान्यक्रम देण्यात आलेला आहे. त्याद्वारे शिक्षण सोपे करण्यास आणि सर्वांपर्यंत पोहोचवण्याचा हा उपक्रम आहे.

नवीन शैक्षणिक धोरण आणि प्रादेशिक भाषा :

मानवी जीवनात मातृभाषेचे स्थान अनन्यसाधारण आहे. बालकाच्या जीवनाचा पहिला परिचय होतो तो त्याच्या मातेच्या बोलण्यातूनच. मातेच्या बोलण्यातूनच बालकाच्या आत्मप्रकटीकरणाच्या धडपडडीला प्रतिसाद मिळतो. मनुष्य कितीही बहुभाषी बनला तरी त्याच्या खऱ्या जिवाळ्याचा उद्गार मातृभाषेतूनच प्रकट होत असतो. म्हणून श्री.ग.वि. अकोळकर म्हणतात, "व्यक्तित्वाच्या वेलीवर उमलणाऱ्या सुंदर सुमनांना मातृभाषा हाच जीवनरस आहे."^३ नवीन शैक्षणिक धोरण २०२० मध्ये भारतीय भाषांचा, अभिजात भाषांचा शिक्षणाचे माध्यम म्हणून स्वीकार करण्याचे धोरण अवलंबले आहे. म्हणजेच विद्यार्थ्यांला त्यांच्या त्यांच्या प्रादेशिक भाषेतून शिक्षण घेण्याचा अधिकार प्राप्त करून दिला आहे आणि याच निर्णयामुळे आता प्रत्येक विद्यार्थ्यांसाठी शिक्षण घेणे काहीसे सोयीस्कर होणार आहे. त्यामुळे शिक्षणातील काठिण्य पातळी कमी होण्याची सुचिन्हे आहेत. कारण मातृभाषेतून शिक्षण ही एक नैसर्गिक गोष्ट मानली जाते.

मूल जन्माला आल्यानंतर कोणत्याही शाळेत न जाता बोलू लागते परंतु शाळेत गेल्यावरच ते भाषा शिकते. कुटुंबात वावरत असताना ते इतर व्यक्तींच्या भाषा संपर्कातून, अनुकरणातूनच व संभाषणातूनच भाषा शिकते. बोलू लागते. सतत या ना त्या कारणाने कानांवर वेगवेगळे शब्द सातत्याने पडल्याने आपल्या शब्दसंग्रहात भर पडते. आपण भोवतालच्या सामाजिक परिसरातून आपले बोल सुरू करतो. भाषा शिकण्यासाठी कौटुंबिक, सामाजिक वातावरण आवश्यक असते. त्यामुळे मातृभाषेतून मिळणारे शिक्षण हे हृदयापर्यंत पोहोचते. अन्य भाषेतून मिळणारे शिक्षण हे मेंदूपर्यंतच मर्यादित राहते. उदा. मराठी मातृभाषा असणाऱ्या विद्यार्थ्यांस इतर कोणत्याही भाषेतून दिले गेलेले ज्ञान आकलणासाठी जड जाते. कठीण होते. कारण

प्रथम येणारे ज्ञान हे मेंदूला मातृभाषेत रूपांतरित करावे लागते व नंतर ते ग्रहण केले जाते. हा प्रकार म्हणजेच कानामागून घास तोंडात घालण्यासारखा आहे.

आपणाला माहिती परभाषेतून मिळवता येते पण ज्ञानात भर घालण्यासाठी आपापली प्रादेशिक बोली, प्रमाणभाषा अधिक उपयुक्त ठरते. कलकत्ता विद्यापीठाच्या पदवीदान समारंभात रवींद्रनाथ यांनी केलेले भाषण कोठारी आयोगाला महत्त्वाचे वाटल्याने त्यांनी त्याचा समावेश आपल्या अहवालात ही केला आहे. "रवींद्रनाथ म्हणतात, बालकाची भाषा आणि शिक्षणाची भाषा यांच्यात फरकत केलेल्या जगात भारताशिवाय दुसरा देश नाही.... जपान... आरंभी त्यांना पाश्चात्य पाठ्यपुस्तकांचा आधार घ्यावा लागला, पण शिक्षणाकरिता स्वदेशीवरच निर्भर राहायचे असा त्यांचा निर्धार होता, कारण शिक्षण त्यांना निवडक नागरिकांपुरते आणि शोभेसाठी नको होते. ... म्हणून फारच थोड्यांच्या आवाक्यात येऊ शकेल असे परकीय भाषा माध्यम चालू ठेवण्याचा मूढपणा त्यांनी मुळीच केला नाही."४ यावरून प्राथमिक शिक्षणातील प्रादेशिक भाषेचे शिक्षणातील महत्त्व अधोरेखित होते.

तर मातृभाषेचे शिक्षणातील महत्त्व पटवून देताना म. गांधी म्हणतात, "परकीय माध्यमांमुळे बालकांचा मेंदू थकतो आणि बुद्धीला मांद्य येते. त्यामुळे ते निव्वळ घोकंपट्टी आणि पोपटपंची करतात. परिणामी मूलभूत विचार व संशोधन याकरिता ती अपाय बनतात. आपल्या ज्ञानाचा लाभ ती कुटुंबाला किंवा समाजाला देऊ शकत नाही. जर मी हुकूमशहा असतो तर परकीय माध्यमातून होणारे बालकांचे शिक्षण थांबवले असते आणि यांनी हा बदल अमलात आणला नाही, तर शिक्षक-प्राध्यापकांना सेवामुक्त केले असते." (यंग इंडिया, १ सप्टेंबर, १९२१) गांधीजींचे हे वक्तव्य अगदी खरे आहे. कारण परकीय भाषेतून मिळालेल्या ज्ञानाचे सर्वतोपरी आकलन होत नाही. त्यामुळे विद्यार्थी केवळ परीक्षार्थी बनतो. परीक्षा पास होण्याकडे त्याचा कल वाढतो. एखाद्या संज्ञेचे, संकल्पनेचे पूर्णपणे आकलन होण्यासाठी मातृभाषाच सहाय्यभूत ठरते. ती त्या मातृभाषेतूनच संपूर्णपणे आकलन होऊ शकते, समजू शकते. आज आपल्या देशात विज्ञानाचे ज्ञान परकीय भाषेतून दिले जात असल्यामुळे ते सामान्यापर्यंत पोहोचू न शकल्याने समाजात वैज्ञानिक दृष्टिकोनाचा अभाव जाणवतो. कारण ते समजलेच नाही तर वैज्ञानिक दृष्टी समाजात कशी काय मूळ धरू शकेल आणि याच सर्व त्रुटींचा, घटकांचा विचार करून नवीन शैक्षणिक धोरणात प्रादेशिक भाषेतून शिक्षण देण्यावरती अधिक भर दिला गेला आहे.

नवीन शैक्षणिक धोरण आणि कला व संस्कृतीला प्रोत्साहन :

भारत देश साहित्य, कला, रूढी, परंपरा, प्राचीन वारसा, वास्तु व वस्तू अशा सर्वांचा खजिना आहे आणि हाच खजिना पाहण्यासाठी, 'अतिथी देवो भव' या संस्कृतीचा अनुभव घेण्यासाठी जगाच्या कानाकोपऱ्यातून अनेक पर्यटक देशात येतात. येथे येऊन येथील अभिजात साहित्य, नृत्य, नाट्य, चित्रपट, संगीत यांचा आस्वाद घेतात. हस्तकलेच्या वस्तू वस्त्रे याची खरेदी करतात. विविध सणांमध्ये सहभागी होऊन आपल्या संस्कृतीचा अभ्यास करतात आणि ह्याच गोष्टी आपल्या देशाला खऱ्या अर्थाने 'अतुल्य भारत' बनवतात. म्हणूनच याच भारतीय कला व संस्कृतीचा प्राचार व प्रसार करणे देशासाठीच नव्हे तर सर्व व्यक्तीसाठी महत्त्वाचे असते आणि हीच गोष्ट जाणून नवीन शैक्षणिक धोरणात त्याचा अंतर्भाव केला गेला आहे.

कलेच्या माध्यमातूनच संस्कृतीची ओळख व शिकवण देता येते आणि हे शिक्षण जर प्रादेशिक भाषेतून झाले तर ते आकलनासाठी सुलभ होते. साहित्य, नृत्य, नाट्य, चित्रपट, संगीत इत्यादी स्वरूपातील कलेचा पूर्ण आस्वाद भाषेशिवाय घेतला जाऊ शकत नाही म्हणूनच एखादी प्रादेशिक भाषा टिकून राहण्यासाठी संस्कृती टिकणे व कला व संस्कृतीचे अस्तित्व अबाधित राहण्यासाठी ती प्रादेशिक भाषा टिकून राहणे गरजेचे ठरते. म्हणूनच नवीन शैक्षणिक धोरणात प्रादेशिक भाषेतून शिक्षण देण्याची, कला व संस्कृतीचे आकलन विद्यार्थ्यांना करून देण्याची जी तरतूद केली आहे त्यातून वरील हेतू सफल होईल असे वाटते.

त्यासाठी धोरणात असे नमूद केले आहे की, आपल्या देशातील समृद्ध विविधतेचे ज्ञान विद्यार्थ्यांनी प्रत्यक्ष पाहून आत्मसात केले पाहिजे. त्यासाठी देशाच्या विविध भागात विद्यार्थ्यांच्या दौऱ्यांचे आयोजन करण्याचे साधे उपक्रम राबवावे लागतील. त्यामुळे केवळ पर्यटनालाच चालना मिळेल असे नाही तर देशाची विविधता, संस्कृती, कला आणि ज्ञान यांचे त्याला आकलन होऊन त्याची समज व महत्त्व अधिक व तो आपल्या कला व संस्कृतीचे संरक्षण व संवर्धन करेल.

प्रत्येक देशाला, समाजाला, प्रांताला स्वतःची अशी एक संस्कृती, परंपरा असते आणि ही संस्कृती परंपरा त्यांच्या नृत्य, गीते, विविध कला, साहित्यातून प्रतिबिंबित होत असते. यातील बरेच कला प्रकार व साहित्य हे असाक्षर, अडणी, खेड्यापाड्यातील लोकांकडून निर्माण झालेले असल्याकारणाने ते त्या-त्या प्रदेशाच्या बोली भाषेतून अभिव्यक्त होत असते, अशा या साहित्याचे, कलांचे आपल्याला आकलन होण्यासाठी, त्याचा आस्वाद घेण्यासाठी ती प्रादेशिक भाषा अवगत असणे गरजेचे असते. या कलांमधून त्या-त्या प्रदेशाची संस्कृती विष्कृत होत असते. त्या संस्कृतीला, कलेला विशिष्ट असे संदर्भ लाभलेले असतात आणि ते संदर्भ ती भाषा योग्य रीतीने समजली तरच समजू शकतात अन्यथा नाही. म्हणून हे संदर्भ त्यांचे परस्पर अनुबंध समजण्यासाठी, त्यांची अर्थप्रतिती होण्यासाठी ती भाषा अवगत असणे गरजेचे असते. म्हणून नवीन शैक्षणिक धोरणात जे प्रादेशिक भाषा, कला व संस्कृती यांना प्रोत्साहन दिलेले आहे त्यातून या तिन्ही घटकांचे संरक्षण व संवर्धन होऊन त्यांच्या वाढीस प्रोत्साहन मिळेल असे वाटते.

➤ निष्कर्ष :

- १) प्रादेशिक भाषेचा स्वीकार केल्यामुळे शाळेचे, घराचे व परिसराचे भाषिक माध्यम एकच होऊन मुलांचे शिक्षण सहजसुलभ होईल व त्याचे आकलन चांगले होईल जे आनंददायी असेल.
- २) प्रादेशिक भाषेच्या स्वीकारामुळे अभिव्यक्तीची रंध्रे मोकळी करण्याचे साधन त्यांना सहजतेने प्राप्त होईल.
- ३) कोणतीही संज्ञा संकल्पना आपल्या मातृभाषेतून शिकल्याने विद्यार्थ्यांच्या जाणिवा समृद्ध होऊन त्यांची आकलन शक्ती मजबूत आणि विकसित होते.
- ४) कोणत्याही व्यक्तीसाठी मातृभाषेतून अभिव्यक्त होणे, आपले विचार, मते, भावना, क्रिया-प्रतिक्रिया मांडणे सहज सुलभ असते व ते नैसर्गिक असेच आहे. म्हणून प्रादेशिक भाषा हे माध्यम शिक्षणासाठी निवडल्यास विद्यार्थी अधिक मोकळेपणाने व मुक्तपणाने व्यक्त होईल.
- ५) विद्यार्थ्यांच्या उपजत गुणांची उत्तम अशी जोपासना होण्यास व व्यक्तिमत्व विकास होण्यास मातृभाषेतून शिक्षण मिळणे गरजेचे असते.
- ६) मातृभाषेतून शिक्षण घेतानाच आपण शब्दांशी खेळू शकतो, शब्दांचा आपणाला हवा तसा आपण वापर करू शकतो असा आत्मविश्वास विद्यार्थ्यांमध्ये वृद्धिंगत होतो त्यामुळे शब्दांचे सामर्थ्य त्यांना समजते.

समारोप:

प्रादेशिक भाषेतून शिक्षण दिल्यामुळे शिक्षणाची काठिण्य पातळी कमी होऊन विद्यार्थ्यांच्या मनातील एखाद्या विषयाची भीती असायची ती नाहीशी होईल. त्यामुळे त्या त्या प्रदेशातील बोलींना / मातृभाषांनाही चांगले दिवस प्राप्त होतील. कोणतीही संस्कृती ही त्या-त्या प्रदेशातील भाषेतूनच आविष्कृत होत असते. त्या संस्कृतीच्या कलेच्या अभिव्यक्तीचे माध्यम हे ती भाषाच असते. शिवाय भाषा, कला व संस्कृती हे तिनही घटक परस्परपूरक व परस्परावलंबी आहेत. त्यामुळे आपल्या देशातील सर्व कला व संस्कृती जागतिक पातळीवर पोहचण्यास मदत होईल.

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राष्ट्रीय शैक्षणिक धोरणातील व्यावसायिक शिक्षणाचे महत्व

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सारांश:

व्यावसायिक शिक्षण ही काळाची गरज बनली आहे. विद्यार्थ्यांला लिहिता, वाचता येणे, तो साक्षर होण्याबाबरोबरच त्याला त्याच्या वैयक्तिक जीवनात स्वावलंबी होणे हे सुद्धा खूप महत्वाचे असते. कारण भारतासारख्या महान लोकसंख्या असणाऱ्या देशात आता बेरोजगारीचे प्रमाण वाढत चालले आहे. भारतात शेती हा प्रमुख व्यवसाय असून त्यावर आधारित व्यवसाय प्रशिक्षण जर शालेय जीवनातच मिळाले तर बेरोजगारी आणि शेतकऱ्या समोरील संकटे कमी होतील. त्याचा फायदा देशाच्या अर्थव्यवस्थेला होईल यात शंका नाही.

प्रस्तावना:

राष्ट्रीय शैक्षणिक धोरण जाहीर करून काही दिवसांपूर्वी दोन वर्षे पूर्ण झाले. कोरोनाचा काळ सुरु असतानासुद्धा यादरम्यान या शैक्षणिक धोरणाची अंमलबजावणी करण्याची तयारी सुरु राहिली. सर्वच राज्ये आपल्या स्तरावर सक्रीय आहेत. तथापि पंतप्रधान मोदींच्या मते, शिक्षणामुळेच परिवर्तन शक्य आहे. एकविसाव्या शतकात देशाचा उत्कर्ष होत असताना त्यात शिक्षणाची भूमिका मोठी आहे, हे मान्य करावे लागेल. या शैक्षणिक धोरणात ज्या संकल्पना मांडण्यात आल्या आहेत, त्या साकार करण्याची वेळ आली आहे. कृषी, व्यापार, उद्योग इ. क्षेत्रातील प्रगतीसाठी व्यावसायिक व तांत्रिक शिक्षणाच्या मिश्र शिक्षण पद्धतीमुळे माध्यमिक शाळांत तसेच महाविद्यालीन दर्जाच्या शिक्षणसंस्थात दिले जाणारे प्रशिक्षण हे सर्वसामान्य शिक्षणापेक्षा वेगळे असते. नोकरी मिळविण्यासाठी किंवा व्यवसायात यशस्वी होण्यासाठी आवश्यक असणारी गुणवत्ता ह्या शिक्षणाद्वारे संपादन करता येते. या गुणवत्तेमध्ये कौशल्य, क्षमता, ज्ञान वृत्ती, कार्य व्यग्रता व पारख करण्याची शक्ती या सर्व गोष्टींचा समावेश होतो. व्यवसायात काही प्रकारभेद आढळतात. शिकणाऱ्यांच्या अंगी आवश्यक असणारी गुणवत्ता काही व्यवसायात उच्च दर्जाची तर काही व्यवसायात सामान्य दर्जाची असते. मिळवायचे ज्ञान काही व्यवसायात विविध प्रकारचे व जटिल असते. तर काही व्यवसायात अल्प ज्ञान पुरेसे असते. व्यावसायिक शिक्षण हे अनेक स्तरावर आयोजित केले जाते. त्या दृष्टीने सामान्यपणे व्यावसायिक शिक्षण प्रशिक्षणाची संरचना व्यापक ठरते. मराठी विश्वकोशात या दृष्टीने अनेक नोंदी स्वतंत्रपणे दिल्या आहेत. उमेदवारी, औद्योगिक शिक्षण, कामगार प्रशिक्षण, कृषीशिक्षण तंत्रविद्या, तांत्रिक शिक्षण, अभियांत्रिकी, वैमानिकी यासारख्या निंदित संबंधित विषयांच्या शिक्षण प्रशिक्षणाविषयीची माहिती थोडक्यात दिलेली आहे.

उद्दिष्टे:

१. नवीन राष्ट्रीय शैक्षणिक धोरणाचे आकलन होणे.
२. शिक्षण व्यवस्थेतील व्यावसायिक शिक्षणाचे महत्व समजून घेणे.

संशोधन पद्धती-

प्रस्तुत संशोधनाचा अभ्यास करताना संशोधकाने दुय्यम साधन सामग्रीच्या साहय्याने तथ्यसंकलन केले. यात विविध संदर्भ ग्रंथ, वर्तमानपत्रातील लेख, विविध वेबसाईट, मासिके यांच्या साह्याने माहितीचे संकलन केले आहे.

व्यावसायिक शिक्षणाचे महत्व-

भारत हा कृषिप्रधान देश आहे. म्हणूनच कृषी हा घटक लक्षात घेऊन त्यावर आधारित व्यवसाय करून त्या प्रकारचे व्यवसायिक शिक्षण मिळणे आवश्यक आहे. त्याचा फायदा देशाच्या अर्थव्यवस्थेला होईल यात शंकाच नाही. आज शेतकऱ्यांच्या पिकांना बाजारभाव हा चिंतेचा विषय आहे. त्यांच्या पिकांवर आधारित उद्योग व्यवसायाची निर्मिती झाली तर परकीय चलन मिळणे सहज शक्य आहे.

आपल्याकडे व्होकेशनल कोर्सेस (व्यावसायिक अभ्यासक्रम) बाबत बरेचसे गैरसमज आहेत. पारंपारिक शिक्षण पद्धती विद्यार्थ्यांच्या शैक्षणिक गुणवत्तेवर भर देते. पण बरेचसे विद्यार्थी पुस्तकी ज्ञानापेक्षा प्रत्यक्ष काम करण्यात किंवा उत्पादक कामात अधिक सक्षम असतात. व्होकेशनल कोर्सेसमध्ये विद्यार्थ्यांना केवळ पुस्तकी ज्ञान न देता त्यांना कौशल्यपूर्ण आणि ज्ञानपूर्ण बनविले जाते. यामुळे विद्यार्थी वैयक्तिक स्तरावर अधिक कुशल आणि प्रशिक्षित होतात. याचा फायदा त्यांना नोकरीच्या वेळी किंवा स्वतःचा व्यवसाय करताना होतो. तसेच अशा प्रशिक्षित उमेदवारामुळे अर्थव्यवस्थेला कुशल मनुष्यबळ मिळते. मिळालेले शिक्षण व असलेली पात्रता यांचा उपयोग फक्त नोकरी मिळविण्याच्या उद्देशाने न करता वेगवेगळ्या व्यावसायिक क्षेत्रात होणे अपेक्षित आहे. तसेच जसे आपण प्रत्येकजण प्राथमिक शिक्षण पूर्ण करतो तसेच आपण व्यावसायिक शिक्षण पूर्ण करणे आवश्यक आहे. कारण व्यावसायिक शिक्षणामुळे आपला उदरनिर्वाह अवलंबून असतो. व्यावसायिक शिक्षणामुळे कुटुंबाच्या व देशाच्या प्रगतीला हातभार लागतो. व्यावसायिक शिक्षणामुळे अनेकांना त्या व्यवसायात रोजगार निर्मिती होण्यास मदत मिळते. अशा प्रकारे उद्योगात यशस्वी होण्यासाठी जर व्यावसायिक शिक्षण शाळा महाविद्यालय स्तरावर मिळाले तर देशाची प्रगती होण्यासाठी खूप मदत होऊ शकते. समाजातील प्रत्येक विद्यार्थी हा जीवनात यशस्वी होईलच याची शाश्वती नाही. कारण प्रत्येक विद्यार्थी हा वेगवेगळ्या बुद्धिमत्तेचा असून त्याची परिस्थिती वेगवेगळी असते. त्यांच्या बुद्धिमत्तेचा विचार करून त्या त्या पद्धतीचे शिक्षण व प्रशिक्षण कार्यक्रम राबविणे गरजेचे आहे.

नवीन राष्ट्रीय शैक्षणिक धोरणातील तरतुदी-

१२ व्या पंचवार्षिक योजनेच्या (२०१२-२०१७) अंदाजपत्रकानुसार, औपचारिक व्यवसाय शिक्षण मिळालेल्या, १९ ते २४ वयोगटातील भारतीय कामगारांचे प्रमाण अतिशय कमी होते. (५% पेक्षा कमी) तर अमेरिकेमध्ये हे प्रमाण ५२% होते. जर्मनीमध्ये ७५% आणि दक्षिण कोरियामध्ये ९६% एवढे जास्त होते. यावरून हेच लक्षात येते कि, भारतामध्ये व्यवसाय शिक्षणाचा प्रसार झपाट्याने करणे अतिशय आवश्यक आहे.

व्यावसायिक शिक्षण घेणाऱ्या विद्यार्थ्यांची संख्या अल्प असण्याचे एक मुख्य कारण म्हणजे व्यावसायिक शिक्षणात यापूर्वी प्रामुख्याने इयत्ता ११-१२ आणि ८ वी व त्यावरील शाळा सोडलेल्या विद्यार्थ्यांवर लक्ष केंद्रित केले होते. याव्यतिरिक्त, व्यावसायिक विषयांमधून इयत्ता ११-१२ वी उत्तीर्ण होणाऱ्या विद्यार्थ्यांकडे निवडलेल्या व्यवसायामध्ये उच्च शिक्षण पुढे चालू ठेवण्यासाठी नेहमीच स्पष्ट असे मार्ग उपलब्ध नसतात. सर्वसाधारण उच्च शिक्षणासाठी प्रवेशाचे निकष देखील व्यावसायिक शिक्षणाची पात्रता असलेल्या विद्यार्थ्यांना प्रवेश देण्याच्या दृष्टीने बनविलेले नव्हते. ज्यामुळे मुख्य प्रवाह किंवा शैक्षणिक शिक्षणातील त्यांच्या समकक्ष विद्यार्थ्यांच्या तुलनेत या विद्यार्थ्यांना प्रतिकूल परिस्थितीचा सामना करावा लागतो. यामुळे व्यावसायिक शिक्षण शाखेतील विद्यार्थ्यांसाठी शैक्षणिक उन्नतीचा मार्ग पूर्णपणे बंद झाला, जी समस्या नुकतीच २०१३ मध्ये राष्ट्रीय कौशल्य पात्रता आराखडा (NSQF) घोषित करून सोडविण्यात आली.

व्यावसायिक शिक्षण हे मुख्य प्रवाहातील शिक्षणापेक्षा हलक्या दर्जाचे आणि प्रामुख्याने ते मुख्य प्रवाहातील शिक्षण न झेपणाऱ्या विद्यार्थ्यांसाठी आहे असे मानले जाते. या समजुतीचा विद्यार्थ्यांच्या निवडीवर परिणाम होतो. ही एक गंभीर समस्या असून, भविष्यात विद्यार्थ्यांना व्यावसायिक शिक्षण कशा प्रकारे दिले जाईल, याचा संपूर्णपणे कायापालट करूनच तिचे निराकरण केले जाऊ शकते. व्यावसायिक शिक्षणाशी संबंध जोडल्या गेलेल्या सामाजिक दर्जाच्या उतरंडीवर मात करणे हे या धोरणाचे उद्दिष्ट्य आहे. आणि यासाठी टप्प्याटप्प्याने सर्व शैक्षणिक संस्थांमध्ये व्यावसायिक शिक्षण कार्यक्रमाचे मुख्य प्रवाहातील शिक्षणामध्ये एकात्मिकरण करणे आवश्यक आहे. लहान वयातच पूर्व माध्यमिक व माध्यमिक शाळेत व्यवसायाची ओळख करून देण्यास सुरुवात करून गुणवत्तापूर्ण व्यावसायिक शिक्षणाचे उच्च शिक्षणात सहजतेने एकात्मिकरण केले जाईल. प्रत्येक विद्यार्थी किमान एक व्यवसाय शिकेल आणि इतर अनेक व्यवसायांची त्याला ओळख करून दिली जाईल. हे यात सुनिश्चित केलेले आहे. यामुळे श्रमप्रतिष्ठा आणि भारतीय कला व कामगिरी यांचा समावेश असलेल्या विविध व्यवसायांचे महत्व यावर भर दिला जाईल. स्वतंत्र शेती विद्यापीठे, कायद विद्यापीठे, आरोग्यशास्त्र विद्यापीठे, तांत्रिक विद्यापीठे आणि इतर क्षेत्रातील एकट्या संस्था, सर्वांगीण आणि बहुशाखीय शिक्षण देणाऱ्या बहुशाखीय संस्था बनविण्याचे उद्दिष्ट्य ठेवतील. एकतर व्यावसायिक किंवा सामान्य शिक्षण देणाऱ्या बहुशाखीय संस्था बनविण्याचे उद्दिष्ट्य ठेवतील. २०२५ पर्यंत किमान ५०% विद्यार्थ्यांना शालेय आणि उच्चशिक्षण व्यवस्थेद्वारे व्यावसायिक शिक्षणाची ओळख होण्यासाठी लक्ष्य आणि कालमर्यादासह एक स्पष्ट

कृती योजना विकसित करण्याचा प्रयत्न या राष्ट्रीय शैक्षणिक धोरणात केला आहे. व्यावसायिक किंवा सामान्य शिक्षण देणाऱ्या सर्व संस्था २०३० पर्यंत एकसंधपणे आणि एकात्मिक पद्धतीने शिक्षण प्रदान करणाऱ्या संस्थांमध्ये किंवा क्लस्टर्समध्ये नैसर्गिकरित्या विकसित होण्याचे लक्ष्य ठेवतील. कायद्याचे शिक्षण जागतिकदृष्ट्या स्पर्धात्मक, व्यापक उपलब्धता आणि वेळेवर न्यायदान करण्यासाठी सर्वोत्तम पद्धतीचा अवलंब करणारे आणि नवीन तंत्रज्ञान स्वीकारणारे असणे आवश्यक आहे. त्याच वेळी ते सामाजिक, आर्थिक आणि राजकीय न्यायाच्या घटनात्मक मुल्यांची माहिती असणारे आणि त्यावर प्रकाश टाकणारे असणे आवश्यक आहे. लोकशाही, कायद्याचे राज्य, आणि मानवी हक्क या साधनांच्या माध्यमातून राष्ट्रीय पुनर्बांधणीच्या दिशेने नेणारे असणे आवश्यक आहे. कायदेशीर शिक्षणाच्या अभ्यासक्रमात सामाजिक-सांस्कृतिक पाश्चिमात्य, त्यासोबतच पुराव्यावर आधारित पद्धतीने कायदेशीर विचारांचा इतिहास, न्यायाची तत्वे, न्यायशास्त्राचा अवलंब आणि इतर संबंधित गोष्टी योग्य आणि पर्याप्तपणे प्रतिबिंबित होणे आवश्यक आहे.

समारोप:

व्यावसायिक शिक्षण हि काळाची गरज बनली आहे. विद्यार्थ्यांला लिहिता, वाचता येणे, तो साक्षर होण्याबरोबरच त्याला त्याच्या वैयक्तिक जीवनात स्वावलंबी होणे हे सुद्धा खूप महत्वाचे असते. कारण भारतासारख्या महान लोकसंख्या असणाऱ्या देशात आता बेरोजगारीचे प्रमाण वाढत चालले आहे. भारतामध्ये शेती हा प्रमुख व्यवसाय असून त्यावर आधारित व्यवसाय प्रशिक्षण जर शालेय जीवनातच मिळाले तर बेरोजगारी आणि शेतकऱ्या समोरील संकटे कमी होतील. त्याचा फायदा देशाच्या अर्थव्यवस्थेला होईल यात शंका नाही.

संदर्भ सूची:

१. राष्ट्रीय शिक्षण धोरण २०२०, शिक्षण मंत्रालय, भारत सरकार.
२. शालेय शिक्षण व क्रीडा विभाग, शासन निर्णय क्र. संकीर्ण -२०२२/प्र.क्र४९/एस.डी-६
३. लोकमत, ४ नोव्हेंबर २०२२.
४. महाराष्ट्र टाइम्स, ४ नोव्हेंबर २०२२.

नवीन शैक्षणिक धोरणात ऑनलाईन शिक्षणाचा प्रभाव

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सारांश:

ऑनलाईन आणि डिजिटल तंत्रज्ञानामुळे मिळणाऱ्या फायद्यांचा लाभ घेण्याचे महत्त्व राष्ट्रीय शिक्षण धोरण 2020 ने मान्य करत, तंत्रज्ञानाशी संबधित जोखमा आणि धोक्यांची सुध्दा दखल घेतली आहे. ऑनलाईन शिक्षणातील तोटे दूर करत किंवा त्याचे निराकरण करत, ऑनलाईन शिक्षणाचे फायदे कशा प्रकारे मिळवता येतील हे निश्चित केले आहे. अध्यापनशास्त्रातील आवश्यक बदलांव्यतिरिक्त, ऑनलाईन मूल्यांकनासाठी देखील वेग वेगळ्या दृष्टीकोनाची गरज आहे. जोपर्यंत डिजिटल भारत मोहीम आणि परवडणारी कॉम्प्युटर उपकरणांची उपलब्धता यासारख्या एकत्रित प्रयत्नांमधून डिजिटल दरी भरून काढली जात नाही, तो पर्यंत ऑनलाईन/ डिजिटल शिक्षणाच्या फायद्यांचा लाभ घेणे शक्य नाही.

प्रस्तावना:

राष्ट्रीय शिक्षण धोरण 1986 मध्ये तयार करण्यात आले आणि 1992 मध्ये सुधारित करण्यात आले. तेव्हापासून अनेक बदल झाले आहेत, ज्या धोरणात सुधारणा करण्याची आवश्यकता आहे. NEP 2020 हे 21 व्या शतकातील पहिले शैक्षणिक धोरण आहे, आणि ते चौतीस वर्ष जुन्या शिक्षणावरील, राष्ट्रीय धोरण (NPE), 1986 ची जागा घेते. प्रवेश, समानता, गुणवत्ता, परवडणारी क्षमता आणि उत्तरदायित्व या मूलभूत स्तंभांवर आधारित हे धोरण आहे, हे धोरण शाश्वत विकासासाठी 2030 च्या अर्जेडाशी संरेखित आहे आणि शालेय आणि महाविद्यालयीन शिक्षण अधिक समग्र, लवचिक, बहुविद्याशाखीय, 21 व्या शतकातील गरजांना अनुकूल बनवून भारताला एक मजबूत विद्वान समाज आणि जागतिक विद्वान महासत्ता बनवण्याचे उद्दिष्ट आहे. 21व्या शतकातील गरजांसाठी उपयुक्त आणि प्रत्येक विद्यार्थ्यांच्या अद्वितीय क्षमता विकसित करण्याच्या उद्देशाने राष्ट्रीय शैक्षणिक धोरणांतर्गत शाळा-महाविद्यालयांमधील शिक्षणाचे धोरण तयार केले गेले. ऑनलाईन अभ्यासाला सोप्या शब्दात इंटरनेट आधारित शिक्षण पद्धती मानता येईल. नवीन परिस्थिती आणि वास्तविकता यासाठी नवीन उपक्रमांची गरज आहे. सध्या वाढत असलेले साथीचे रोग आणि महामारीची परिस्थिती पाहून , जेव्हा कधी आणि जिथे कुठे पारंपरिक आणि प्रत्यक्ष शिकवण्याच्या माध्यमांचा वापर शक्य नसेल, तेव्हा दर्जेदार शिक्षणाची पर्यायी माध्यमे तयार ठेवणे गरजे झाले आहे. या संदर्भात, तंत्रज्ञानामुळे मिळणाऱ्या फायद्यांचा लाभ घेण्याचे महत्त्व राष्ट्रीय शिक्षण धोरण 2020 ने मान्य करत, तंत्रज्ञानाशी संबधित जोखमा आणि धोक्यांची सुध्दा दखल घेतली आहे. ऑनलाईन शिक्षणातील तोटे दूर करत किंवा त्याचे निराकरण करत, ऑनलाईन शिक्षणाचे फायदे कशा प्रकारे मिळवता येतील हे निश्चित करण्यासाठी, काळजीपूर्वकपणे तयार केलेल्या आणि

योग्य रीतीने प्रमाणबद्ध केलेल्या प्रथमदर्शी अभ्यासाची (पायलट स्टडी) गरज आहे. या दरम्यान, सर्वांसाठी दर्जेदार शिक्षण उपलब्ध करून देण्यातील वर्तमान आणि भविष्यातील आव्हानांचा सामना करण्याकरता, विद्यमान डिजिटल प्लॅटफॉर्म आणि ICT-आधारित शैक्षणिक उपक्रमांचा दर्जा वाढवावा लागेल आणि त्यांचा विस्तार करावा लागेल.

जोपर्यंत डिजिटल भारत मोहीम आणि परवडणारी कॉम्प्युटर उपकरणांची उपलब्धता यासारख्या एकत्रित प्रयत्नांमधून डिजिटल दरी भरून काढली जात नाही, तो पर्यंत ऑनलाईन/ डिजिटल शिक्षणाच्या फायद्यांचा लाभ घेणे शक्य नाही. ऑनलाईन आणि डिजिटल शिक्षणासाठी तंत्रज्ञानाचा वापर करत असताना समानतेविषयक शंका /समस्यांची योग्य दखल घेतली जाणे महत्त्वाचे आहे.

प्रभावी ऑनलाईन प्रशिक्षक होण्यासाठी शिक्षकांना योग्य प्रशिक्षण आणि विकासाची गरज आहे. पारंपरिक वर्गातील एक चांगला शिक्षक ऑनलाईन वर्गात देखील तेवढीच चांगली कामगिरी करेल असे गृहित धरता येणार नाही. अध्यापनशास्त्रातील आवश्यक बदलांव्यतिरिक्त, ऑनलाईन मूल्यांकनासाठी देखील वेग वेगळ्या दृष्टीकोनाची गरज आहे. मोठ्या प्रमाणावर ऑनलाईन पद्धतीने परीक्षा आयोजित करण्यात अनेक आव्हाने आहेत जसे की, ऑनलाईन पद्धतीने विचारता येऊ शकणाऱ्या प्रश्नांच्या प्रकारांवर मर्यादा, नेटवर्क आणि वीजपुरवठा खंडित होणे, आणि परीक्षेतील अनैतिक प्रकार रोखणे. ऑनलाईन/डिजिटल शिक्षणाच्या अवकाशात, ललित कला आणि विज्ञान प्रत्याक्षके अशा काही विशिष्ट प्रकारच्या अभ्यासक्रम/विषयांना मर्यादा आहेत, ज्यांवर नाविन्यपूर्ण उपायांनी काही प्रमाणात मात करता येऊ शकेल. याशिवाय, ऑनलाईन शिक्षणाचा अनुभवात्मक आणि उपक्रम-आधारित शिक्षणाशी मेळ घातला जात नाही तो पर्यंत, ते केवळ स्क्रीन-आधारित शिक्षण बनण्याची शक्यता आहे ज्यात अध्ययनाच्या सामाजिक, भावनात्मक आणि मनोकारक पैलूंकडे मर्यादित लक्ष असेल.

उद्दिष्टे:

१. नवीन राष्ट्रीय शैक्षणिक धोरणाचे आकलन होणे.
२. शिक्षण व्यवस्थेतील ऑनलाईन शिक्षणाचे महत्व समजून घेणे.

संशोधन पद्धती:

प्रस्तुत संशोधनाचा अभ्यास करताना संशोधकाने दुय्यम साधन सामग्रीच्या साह्याने तथ्यसंकलन केले. यात विविध संदर्भ ग्रंथ, वर्तमानपत्रातील लेख, विविध वेबसाईट, मासिके यांच्या साह्याने माहितीचे संकलन केले आहे.

डिजिटल तंत्रज्ञानाचा उदय आणि शाळेपासून उच्च शिक्षणापर्यंत सर्व स्तरांवर अध्यापन-अध्ययनासाठी तंत्रज्ञानाचा फायदा करून घेण्याचे महत्त्व लक्षात घेता हे धोरण खालील प्रमुख उपक्रमांची शिफारस करते:

- 1) **ऑनलाईन शिक्षणासाठी पथदर्शी अभ्यास:** सामान्य शिक्षणाचे ऑनलाईन शिक्षणाशी एकात्मीकरण करण्याच्या फायद्यांचे मूल्यांकन करण्यासाठी व दोष कमी करण्यासाठी आणि विद्यार्थ्यांना उपकरणांची सवय लागणे, ई-मजकुरासाठी सर्वाधिक पसंतीचा फॉरमॅट अशा इतर संबधित बाबींचा अभ्यासदेखील करण्यासाठी, समांतर पणे काही पथदर्शी अभ्यासांची मालिका आयोजित करण्यासाठी योग्य संस्था जसे की, NETF, CIET, NIOS, IGNOU, IITs, NITs इ. निश्चित केल्या जातील. या पथदर्शी अभ्यासांचे निकाल सार्वजनिकरित्या जाहीर केले जातील आणि सतत सुधारणा करण्यासाठी वापरले जातील.
- 2) **डिजिटल पायाभूत सुविधा:** भारताचा मोठा आकार, विविधता, गुंतागुंती आणि उपकरणांची उपलब्धता यावर उपाय म्हणून एकाहून अधिक प्लॅटफॉर्मद्वारा आणि विशिष्ट उपायांद्वारे वापरता येईल अशा, मुक्त, आंतरकार्यक्षम विकसनक्षम, सार्वजनिक डिजिटल पायाभूत सुविधा शिक्षण क्षेत्रात निर्माण करण्यासाठी गुंतवणूक करण्याची गरज आहे. यामुळे हे सुनिश्चित होईल की तंत्रज्ञानावर आधारित उपाय तंत्रज्ञानाच्या वेगवान प्रगतीमुळे कालबाह्य होणार नाहीत.
- 3) **ऑनलाईन अध्यापन प्लॅटफॉर्म आणि साधने:** शिक्षकांना विद्यार्थ्यांच्या प्रगतीवर नजर ठेवण्यासाठी, संरचित, वापरण्यास सोप्या, समृद्ध सहाय्यक साधनांचा संच प्रदान करण्यासाठी SWAYAM, DIKSHA आशा समर्पक विद्यमान ई-अध्ययन प्लॅटफॉर्मचा विस्तार केला जाईल. ऑनलाईन वर्ग घेण्यासाठी टू-वे-विडिओ आणि टू-वे-ऑडिओ इंटरफेस यांसारखी साधने ही काळाची गरज आहे हे सध्याच्या महासाथीने दाखवून दिले आहे.
- 4) **मजकूर निर्मिती, डिजिटल भांडार आणि प्रसार:** कोर्से वर्क, गेम्स आणि सिम्युलेशन शिकणे, ऑगमेंटेड वास्तव आणि व्ह्यूअल मजकुराचे एक डिजिटल भांडार विकसित केले जाईल, ज्यामध्ये परिणामकारकता आणि गुणवत्तेबाबत वापरकर्त्याद्वारे रेटिंग देण्याची एक स्पष्ट सार्वजनिक प्रणाली असेल. मजा घेऊन शिकण्यासाठी, ऑप्स, भारतीय कला व संस्कृती यांवर आधारित गेम्स अशी विद्यार्थ्यांना साजेशी साधने देखील, एकाहून अधिक भाषांमध्ये, वापरण्याच्या स्पष्ट सूचनांसह, तयार केली जातील. विद्यार्थ्यांपर्यंत ई-सामग्रीचा प्रसार करण्यासाठी एक विश्वासाहर्षक बँकअप यंत्रणा प्रदान केली जाईल.
- 5) **डिजिटल दरी कमी करणे:** अत्यंत मर्यादित डिजिटल सुविधा उपलब्ध असलेला लोकसंख्येचा एक मोठा वर्ग अजूनही अस्तित्वात आहे हे वास्तव लक्षात घेता, दूरदर्शन, रेडीओ आणि कम्युनिटी रेडीओ अशा विद्यमान प्रसारमाध्यमांचा चित्रप्रक्षेपण आणि प्रसारणासाठी व्यापकपणे वापर केला जाईल. असे शैक्षणिक कार्यक्रम, विद्यार्थ्यांच्या विविध गरजा भागवण्यासाठी वेगवेगळ्या भाषांमध्ये 24/7 उपलब्ध करून देण्यात येतील. सर्व भारतीय भाषांमध्ये मजकूर निर्मितीला महत्त्व दिले जाईल

- आणि ते आवश्यक असेल; डिजिटल मजकूर शिक्षक आणि विद्यार्थ्यांपर्यंत शक्यतो त्यांच्या शिक्षणाचे माध्यम असलेल्या भाषेतून पोहोचणे आवश्यक आहे.
- 6) **व्हच्युअल प्रयोगशाळा:** व्हच्युअल प्रयोगशाळा तयार करण्यासाठी DIKSHA, SWAYAM आणि SWAYAMPURABHA यासारख्या विद्यमान ई-लर्निंग प्लॅटफॉर्मचा उपयोग केला जाईल, जेणेकरून सर्व विद्यार्थ्यांना दर्जेदार प्रत्याक्षित आणि प्रत्यक्ष प्रयोग-आधारित अध्ययन उपलब्ध होईल. आधीच मजकूर लोड केलेल्या टॅबलेट्स सारख्या योग्य डिजिटल उपकरणांद्वारे SEDG विद्यार्थ्यांना आणि शिक्षकांना पुरेशा सुविधा उपलब्ध करून देण्याची शक्यता विचारात घेऊन ती विकसित केली जाईल.
 - 7) **शिक्षकांना प्रशिक्षण आणि प्रोत्साहन:** विद्यार्थी-केंद्रीत अध्यापनशास्त्राचे आणि ऑनलाईन शिक्षण प्लॅटफॉर्म, साधने वापरून स्वतःच उच्च-गुणवत्तेचे ऑनलाईन मजकूर निर्माते कसे बनावे याचे शिक्षकांना काटेकोर प्रशिक्षण दिले जाईल. मजकुरासोबत आणि एकमेकांसोबत विद्यार्थ्यांचा सक्रीय सहभाग सुलभ करण्यातील शिक्षकांच्या भूमिकेवर भर दिला जाईल.
 - 8) **ऑनलाईन मूल्यांकन आणि परीक्षा:** राष्ट्रीय मूल्यांकन केंद्र किंवा परखसारख्या प्रस्तावित संस्था, शालेय बोर्ड्स, NTA किंवा इतर मान्यताप्राप्त संस्था क्षमता, पोर्टफोलिओ, रूब्रीक्स, मानक मूल्यांकने, आणि मूल्यांकनाचे विश्लेषण यांच्या रचनेसह मूल्यांकनाच्या आराखड्याची रचना आणि अंमलबजावणी तयार करतील. 21व्या शतकातील कौशल्यावर लक्ष केंद्रित करून शैक्षणिक तंत्रज्ञान वापरून मूल्यांकनाचे नवीन मार्ग निश्चित करण्यासाठी अभ्यास हाती घेतले जातील.
 - 9) **अध्ययनाची मिश्र मॉडेल्स:** डिजिटल अध्ययन आणि शिक्षणाला प्रोत्साहन देताना, समोरासमोर प्रत्यक्ष अध्ययनाचे महत्त्वसुद्धा पूर्णपणे लक्षात घेण्यात आले आहे. त्यानुसार, वेगवेगळ्या विषयांच्या योग्य पुनरावृत्तीसाठी मिश्र अध्यापनाची विविध परिणामकारक मॉडेल्स शोधली जातील.
 - 10) **मानके निश्चित करणे:** ऑनलाईन आणि डिजिटल शिक्षणाबद्दलचे संशोधन होईल तसे NETF आणि इतर योग्य संस्था ऑनलाईन/ डिजिटल अध्यापन-अध्ययनासाठी आशय, तंत्रज्ञान, आणि अध्यापनशास्त्र यांची मानके निश्चित करतील. ही मानके राज्ये, बोर्ड्स, शाळा आणि संकुले, HEIs इ.साठी ई-शिक्षणाची मार्गदर्शक तत्त्वे तयार करण्यासाठी मदत करतील.

समारोप:

ऑनलाईन आणि डिजिटल तंत्रज्ञानामुळे मिळणाऱ्या फायद्यांचा लाभ घेण्याचे महत्त्व राष्ट्रीय शिक्षण धोरण 2020 ने मान्य करत, तंत्रज्ञानाशी संबधित जोखमा आणि धोक्यांची सुध्दा दखल घेतली आहे. ऑनलाईन शिक्षणातील तोटे दूर करत किंवा त्याचे निराकरण करत, ऑनलाईन शिक्षणाचे फायदे कशा प्रकारे मिळवता येतील हे निश्चित केले आहे. अध्यापनशास्त्रातील आवश्यक बदलांव्यतिरिक्त, ऑनलाईन मूल्यांकनासाठी

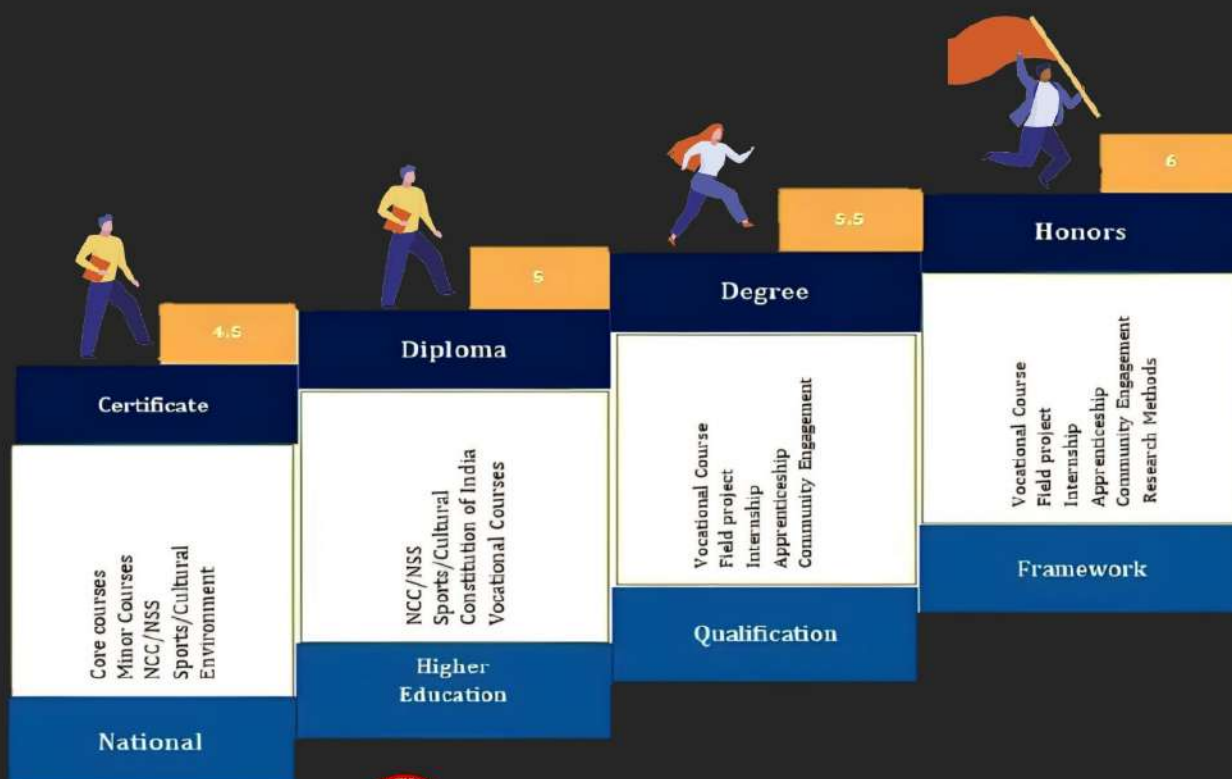
देखील वेग वेगळ्या दृष्टीकोनाची गरज आहे. जोपर्यंत डिजिटल भारत मोहीम आणि परवडणारी कॉम्प्युटर उपकरणांची उपलब्धता यासारख्या एकत्रित प्रयत्नांमधून डिजिटल दरी भरून काढली जात नाही, तो पर्यंत ऑनलाईन/ डिजिटल शिक्षणाच्या फायद्यांचा लाभ घेणे शक्य नाही.

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Digital Libraries and Reference Services: Present and Future

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Abstract :

Reference services have taken a central place in library and information services. They are also regarded as personalised services since in most cases a personal discussion takes place between a user and a reference librarian. Based on this, the librarian points to the sources that are considered to be most appropriate to meet the specific information need(s) of the user. Since the Web and digital libraries are meant for providing direct access to information sources and services without the intervention of human intermediaries, the pertinent question that appears is whether we need reference services in digital libraries, and, if so, how best to offer such services. Current digital libraries focus more on access to, and retrieval of, digital information, and hardly lay emphasis on the service aspects. This may have been caused by the narrower definitions of digital libraries formulated by digital library researchers.

This paper looks at the current state of research in personalised information services in digital libraries. It first analyses some representative definitions of digital libraries in order to establish the need for personalised services. It then provides a brief overview of the various online reference and information services currently available on the Web.

Keywords: Digital libraries, Information services Reference service

Introduction:

Reference services, sometimes referred to as "reference and information services", refer to the personal assistance provided to users in the pursuit of information (Bunge, 1999). Provision of such personalised information services has remained the central theme of the library and information profession. The importance of these services grew over time with the introduction of new technologies and services in libraries. Bopp and Bunge categorized the practices of reference services into three groups...

- (1) Information services that involve either finding the required information on behalf of the users, or assisting users in finding information;
- (2) Instruction in the use of library resources and services (broadly defined as information literacy skills); and
- (3) User guidance, in which users are guided in selecting the most appropriate information sources and services.

An important part of a reference service is the reference interview, which involves a personal discussion between a user and the reference librarian. Through the interview the reference librarian not only tries to understand the specific information need(s), but also collects information about the user, such as the user's subject knowledge, the purpose of finding the specific information, and so on. Based on the reference interview, the reference librarian is often able to filter the retrieved information in order to pick up the most appropriate source(s) for the given user at the given point of time. While reference service is largely a reactive service, i.e. assistance or the service is provided when asked for by the users, libraries have also played a key role in providing information services in anticipation of user needs. Such services include various forms of current awareness and selective dissemination of information services. These

types of service that aim to keep the users abreast of the latest developments in their areas of interest, however, have not been provided only by libraries.

Defination:

Digital library:-

A digital library is a collection of documents in organized electronic form, available on the Internet or on [CD-ROM](#) (compact-disk read-only memory) disks. Depending on the specific library, a user may be able to access magazine articles, books, papers, images, sound files, and videos.

On the Internet, the use of a digital library is enhanced by a [broadband](#) connection such as cable modem or DSL. Dial-up connections can be used to access plain-text documents and some documents containing images, but for complex files and those with animated video content, a downstream data speed of at least several hundred kilobits per second ([Kbps](#)) can make the user's experience less tedious, as well as more informative. Internet-based digital libraries can be updated on a daily basis. This is one of the greatest assets of this emerging technology.

Brief Digital Library History

The first major acknowledgment of the importance of digital libraries came in a 1994 announcement that \$24.4 million of US federal funds would be dispersed among six universities for "digital library" research (NSF 1994). This funding came through a joint initiative of the National Science Foundation (NSF), the Department of Defense Advanced Research Projects Agency (ARPA), and the National Aeronautics and Space Administration (NASA). The projects were at Carnegie Mellon University, the University of California-Berkeley, the University of Michigan, the University of Illinois, the University of California-Santa Barbara, and Stanford University.

These six well-funded projects helped set in motion the popular definition of a "digital library." These projects were computer science experiments, primarily in the areas of architecture and information retrieval. According to an editorial in *D-Lib Magazine*, "Rightly or wrongly, the DLI-1 grants were frequently criticized as exercises in pure research, with few practical applications" ([Hirtle 1999](#)).

Though these projects were exciting attempts to experiment with digital collections, in no sense of the word did they resemble libraries. They had little or no service components, no custodianship over collections, no sustainability, no base of users, and no ethical traditions.

Definition of digital libraries and personalised services

While reviewing the definitions of digital libraries, Borgman (1999) noted that "in general, researchers (who primarily come from computer science and/or engineering backgrounds) focus on digital libraries as content collected on behalf of user communities, while librarians focus on digital libraries as institutions or services". She further stressed that the current state of digital library research and development, especially in the USA, is influenced by the research definition of digital libraries (Borgman, 2000).

The fact that digital libraries should not be regarded only as point of access to digital information was emphasised by a definition of digital libraries given by Borgman as early as in 1992 whereby she contended that a digital library (then defined as an electronic library) is "(1) a service; (2) an architecture; (3) a set of information resources, databases of text, numbers,

graphics, sound, video, etc. and (4) a set of tools and capabilities to locate, retrieve and utilize the information resources available'' (Borgman, 1999). The definition of a digital library that came up in the March 1994 Digital Library Workshop emphasized that a full service digital library must accomplish all the essential services of traditional libraries and also exploit the well-known advantages of digital storage, searching and communication (Gladney *et al.*, 1994).

Reference and information services on the Web

A number of reference and information services are now available on the Web. Interestingly, many of these services are provided by non-library and commercial organisations. While some are free, others need payment. Detailed discussions on such services are available in a number of publications.

Chowdhury and Chowdhury (2001b) categorised online reference and information services into three broad groups:

- (1) reference and information services from publishers, database search services, and specialised institutions;
- (2) reference services provided by libraries and/or experts through the Internet; and
- (3) reference and information services where users need to conduct a search and find information through the Web

Chowdhury and Chowdhury (2001a) discussed several online information services that belong to the first category mentioned above. They have listed various current awareness and SDI services such as: the contents page service from commercial publishers.

- The contents page service from commercial publishers, such as Elsevier's Contents Direct Service, IDEAL Alert from Academic Press, and so on.
- Information on new books available free from publishers and vendors, such as the *Wiley Book Notification Service* and Amazon.com.
- SDI services from online search service providers, such as Dialog (*Dialog Aler*

The different types of services and some of their characteristics. It provides the following facts about the Web-based reference services listed there:

The listed Web-based reference services are offered by dotcom companies; these services use the Web only for communication between the user and the system/answer provider, while the information service is provided by a human expert.

Web-based reference services where users need to conduct a search for a reference query. Such services provide free access to various online reference sources, and allow users either to select a specific source or conduct a search on a range, or all, of the reference sources. Examples of such services include the following:

- Internet Public Library (<http://www.ipl.org>).
- Infoplease (<http://www.infoplease.com>).
- Britannica (<http://www.britannica.com>).
- Bartleby Reference (<http://www.bartleby.com/reference>).
- Internet Library for Librarians (<http://www.itcompany.com/inforetriever/>).
- Electric Library (<http://ask.elibrary.com/refdesk.asp>).
- Mediaeater Reference Desk (<http://www.mediaeater.com/easy-access/ref.html>).
- ReferenceDesk (<http://www.referencecdesk.org/>).
- Xrefer (<http://www.xrefer.com/>).

Digital reference services and libraries

A number of libraries have now begun to offer Web-based reference services and a number of recent studies report the current practice of reference services provided by libraries. Although this is not an exhaustive review of all the Web-based reference services provided by libraries, the following section provides a quick overview of some that are currently available.

Digital reference services for the general public.

Ask A Librarian (n.d.) is a Web-based reference service, primarily designed for UK residents, provided by a network of public libraries in the UK. The site says: "Mail us your factual question and we'll send you an answer within two working days, if not before". A user has to put the query through an enquiry page, which is automatically routed to one of the participating libraries, which receives it as an e-mail message. Within two days the library sends an e-mail.

The British Library provides special reference services for business, patent, scientific, technical, medical and environmental information. These services range from answering simple questions to finding answers to complex questions involving online database searching, etc. While some of these services are free, for others users need to pay. For example, users can ask simple business questions using a form, and can expect an answer within ten working days. Similarly, users can send e-mails with simple environmental queries. A typical answer in such a case may include (British Library, n.d.):

Digital reference services for users of academic libraries

Academic libraries have also begun to offer Web-based reference services. Wasik (n.d.) and Wasik and Lankes (1999) discuss the value of digital reference and AskA services in the K-12 educational environment. They described how AskA services are built and maintained, and also explain how the service works in the classroom. Archer and Cast (1999) emphasised the importance of the personal touch in reference services and discussed how Web technology and the personal element of reference services can be combined to provide Web-based reference services.

Smith (2001) discussed the current technologies, such as chat and videoconferencing software used by libraries for providing digital reference services. Richardson *et al.* (2000) examined the information technology aspects and the key organisational issues involved in establishing an electronic reference desk service in a library. They also reviewed the usefulness of some electronic reference services.

Conclusion:

The reference librarian in the new millennium will need the ability to read the situation a user is in and find the right information for that situation". Considering this view and also to keep in pace with the rapid appearances and developments of Web-based reference and information services provided by non-library organisations, many library and information science professionals have now turned their attention to the provision of e-reference services. Oder and Weissman (2001) suggested that "the year 2000 brought the advent of live reference. Several libraries, especially academic ones, have used or adapted chat or commercial call centre software to communicate with surfers in real time and send Web resources to their browser".

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