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Ms. Angelina Nunes

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Dr. Agnes DCosta

Associate Professor, Pushpanjali College of Education, Vasai.

Sr. Delicia Fernandes

Assistant Professor, Pushpanjali College of Education, Vasai.



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1. Role of NEP 2020 in Nurturing Holistic Multidisciplinary Education

Dr. Hema Rajendra Bhadawkar

(I/C) Principal, K. J. Somaiya College of Education. (Maharashtra) India.

Ms. Alka Bansal

Assistant General Manager (Curriculum & Content) Podar Innovation Centre, Podar Education Network, Parel, Mumbai. (Maharashtra) India.

Abstract

The National Education Policy 2020 is the latest reform policy introduced by the Government of India to modernize the education system and align its outcome to the changing trends in the world. This policy was approved by the Union Cabinet of India on 29 July 2020 and the first phase of implementation began on 1st April 2022. For India to become a developed country in the next 25 years, the Indian economy needs to grow at a radical speed. And for that, it needs gen-next reforms and must take drastic steps toward human development. It is a fact that the education system of a country is at the heart of human development. So, the change needs to be first implemented here. With this vision, NEP 2020 has proposed to revamp the archaic education system that has prevailed in our country for so long. One major reform proposition of NEP 2020 is to take a holistic multidisciplinary approach to education. There has been considerable debate and discussion in the education world regarding the best way of teaching. The new world problems are unique and extremely complex, however, the solutions to these problems cannot be simple. It requires innovative thinkers who can look at the problem from all perspectives and provide solutions. NEP 2020 intends to develop the key skills required to create innovative thinkers, resolute solution providers, and passionate change-makers by taking a holistic approach to teaching. This paper will discuss the role of NEP 2020 in nurturing Holistic Multidisciplinary education and its impact. It will also enlist challenges that are likely to be experienced during the process and provide recommendations thereof.

Keywords: Holistic, Multidisciplinary, innovative, National Education policy 2020, Human Development

Introduction

Education is in the realm of transforming nations by transforming the generations to come. It is education that creates perspectives in individuals and provides the skill, knowledge, and intent that is needed to drive change. How a country imparts education to its young generation has been proven to go a long way in shaping the future of the nation. A relevant case study to visualize this hypothesis is India- a developing nation that is thriving to soon be enlisted as a superpower. But the education system of India has been driven by the NEP 1986, whose policies and processes do not cater to the needs of the current world. NEP 2020 visualizes this need and provides transformational policies to be implemented into the education system in India. It is *student-centric* and aims at developing all capabilities of students by taking a *holistic multidisciplinary approach* to teaching. Such an approach ensures that individuals are prepared to face the highly complex problems of the new world. It will ensure that they learn to develop and utilize the 21st-century skills of collaboration, communication, critical thinking, citizenship, creativity, and growth mind-set.

Objectives of the Study

The objective of this study is

- To highlight the importance of implementing a holistic and multidisciplinary approach to teaching
- To highlight the role of NEP 2020 to help in this implementation
- To discuss the challenges in implementing a holistic and multidisciplinary approach to teaching
- To provide recommendations to overcome these challenges.

Review of Literature

NEP 1986 and NEP 2020

NEP 1986 was introduced at a time when India was still struggling to recover from the aftereffects of British rule. The country was organizing its systems and processes and amidst that education which had been at the back seat for a very long time became a priority. The focus of NEP 1986 was to provide equal educational opportunities to all the citizens of the country. The idea was to bring all sections of society under one umbrella of education and to provide opportunities to the backward classes so that they could uplift themselves. Various reforms and subsidies were introduced so that prominence was given to women's education. NEP 2020 has

come after 30 years intending to reform the education system. The focus is to tap the full human potential of the learners, develop an equitable and just society, and thus help in national development

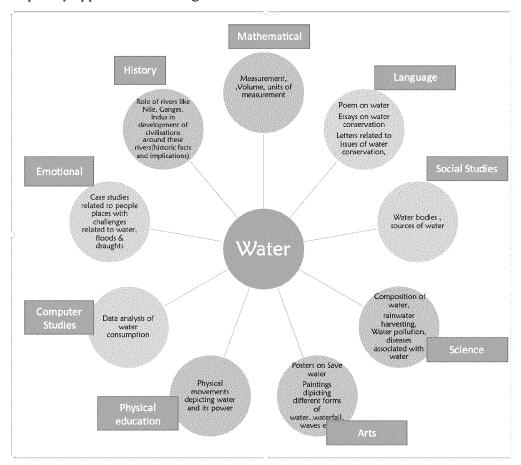
Fundamental Principles of NEP 2020

- Recognizing, identifying, and fostering the unique capabilities of each student
- Promoting each student's holistic development in both academic and non-academic spheres
- Achieving Foundational Literacy and Numeracy in all students by Grade 3
- Flexibility for learners to choose their learning trajectories and programs, and thereby choose their paths as per their talents and interests.
- No hard separations between arts and sciences, curricular and extracurricular activities, and vocational and academic streams, among others to eliminate harmful hierarchies and silos in areas of learning
- Multidisciplinary and holistic education across the sciences, social sciences, arts, humanities, and sports to ensure the unity and integrity of all knowledge
- Promotion of multilingualism and the power of language in learning and teaching
- Life skills such as communication, teamwork, cooperation, and resilience
- Regular formative assessment for learning
- Full equity and inclusion as the basis of all educational decisions
- Teachers at the heart of the learning process
- Regulatory framework to promote integrity, transparency, and resource efficiency of the educational system
- Encouraging innovative ideas by promoting out-of-the-box thinking and promoting the use of technology

Holistic and Multidisciplinary Approach to Teaching

A holistic approach to teaching is to do with the all-around development of students. Every single child should be taught in a manner that ensures intellectual, emotional, social, physical, artistic, creative, and spiritual skills development in them. The content knowledge that is disseminated through different curricula should be delivered in such a manner that the learners are not only engaged in the learning process but take responsibility for such learning. The idea of holistic learning is to ensure that knowledge should help to develop the skills that will ensure that

learners can handle real-world problems effectively and are future-ready. To ensure that learning is holistic the best method is to integrate disciplines so that every aspect of human development can be touched upon. This is the multidisciplinary approach to teaching. When disciplines dilute the boundaries and blend to bring out the desired learning outcomes in a holistic way it is a multidisciplinary approach to teaching.



Benefits of a Holistic and Multidisciplinary Approach in Teaching

Flexibility in Courses and Academic Pathways

A prevalent point of contention seen in the education industry is between parents and students where they are struggling to choose between streams like Mathematics, Sciences, Commerce, Humanities, etc. Students show interest and competencies in more than one field and are forced to choose one over the other, for example, a student with a flair for writing and literature, will need to drop English if they want to pursue a degree in Genetics as they are streams in opposing fields of study. Learning has been restricted or controlled by the dynamics of the system that has prevailed for so long in India. However, knowledge is all pervasive and

should be driven only by the desire of an individual to learn. This is the fundamental basis of teaching through a holistic and multidisciplinary approach. This approach aims at integrating streams by diluting the boundaries of disciplines and allowing students to learn sciences, languages, humanities, mathematics, and social sciences based on their interests and needs. This means the student will learn only what he wants to learn and all that he desires to learn. This will ensure that the learner remains highly motivated which will build their emotional, social, moral, physical, and intellectual competencies in the process. Simply to say, a multidisciplinary approach to teaching will lead to holistic development.

Learning Forever

To provide a holistic education the academic content needs to be connected to real-life experiences which will help students develop their analytical, problem solving, critical thinking, and creative skills. What one experiences in life stays as learning forever and that is the philosophy that further drives this pedagogy.

Out of the Box thinking

The real-world problems are not single disciplinary and with the vast range of human, social, political, and economic factors in play, understanding the nuances of different streams while being socially, emotionally, morally, and mentally responsible is the only way in which learners can hope to survive and make a better world. By synthesizing streams students will learn to draw logical connections between different ideas which will then help them solve real-world problems and drive changes for a brighter future.

Role of NEP in nurturing Holistic Multidisciplinary Education

NEP has proposed to reform the education system by implementing changes in phases. While the first phase of the policy is already initialized in April 2022, the wheels of transformation have taken momentum for all the phases.

To ensure that schools can implement a holistic and multidisciplinary education system it has intervened and taken supportive steps which include the following-

Teacher Training explaining the pedagogy and providing strategies for implementing
the new approach is being conducted nationwide across all schools. These pieces of
training are mandatory, and the content is led by the CBSE board only ensuring that the
delivery is standardized.

- NCERT has already begun revamping the curriculum keeping in line with the new
 developments and future visions. Learning outcomes have been revised such that
 discipline-specific outcomes are integrated into skill-specific outcomes. Some of the
 units will be explicitly taught in a multidisciplinary way.
- Competency-based assessments which will focus on the analytical and application skills of the students have taken over the previous recall type of assessments. Internal assessments and projects have become an integral part of the teaching-learning process.
- Report cards will be holistic indicating the areas of development and the performance of the students thereof.
- Mandatory periods and tasks for art, drama, physical education, spiritual education, etc have now been defined and must be implemented by the school
- Students will be having the liberty to select cross-functional subjects and thus they can build a diversified portfolio.
- Vocational education for skill development will become part of the curriculum as per NEP 2020
- Special focus on online teaching learning and integrating technology right at the beginning of the academic journey of the students will ensure that they are prepared for the next-gen challenges.
- To ensure that students benefit from the selection of diversified subject streams NEP 2020 has led to the introduction of special streams like Clio dynamics-combination of social sciences, mathematics and statistics, behavioural finance/economics- a combination of psychology with economics, genetics law- a bioscience degree that is connected to the courtroom and many more.
- All Higher Institutes including IIT's will ensure that diversified courses spanning across disciplines will be developed
- Students will have multiple entry and exit options so that they can choose and plan their career at any stage of learning
- Research based learning will become a primary component of learning at all stages of development to ensure development of analytical and critical thinking skills.

Challenges Expected in Implementing the Holistic and Multidisciplinary Approach to Teaching

The proposals under NEP 2020 require schools, teachers, students, and parents to adapt themselves in several different ways. These adaptations bring with them challenges; some of which are identified and can be mitigated while some of them are yet to be identified.

Schools

- Schools in India have been following set pedagogies, so implementing a holistic and
 multidisciplinary approach in teaching will require them to train the teachers, adapt the
 curriculum, and re-plan the schedules to accommodate all the learning outcomes as
 enlisted in the NEP 2020. This will require major investment in terms of time and
 money which is one of the major challenges that have been identified.
- Different schools have interpreted the expectation of the NEP 2020 concerning the
 Holistic and Multidisciplinary approach differently based on their own understanding
 of the term. This might fundamentally defeat the purpose of NEP 2020, which is to
 ensure that all students in the country must get the same kind of education.

Teachers

- Teachers are at the forefront of implementing the Holistic and Multidisciplinary approach to teaching. Teachers who have been masters in their own subject very well understand and drive the learning outcomes of their subject. However, for implementing the Holistic and Multidisciplinary approach they need to equally understand and be willing to integrate the learning outcomes of other disciplines. This will create a conflict of opinion among individuals who feel territorial about their disciplines. They will fail to see the larger picture and might be reluctant to integrate their discipline in a manner that is holistic and multidisciplinary.
- Teachers will need training and they will need to calibrate their approach to teaching which is likely to bring about a lot of resistance and/or discomfort.

Students

 The students of this millennium are exposed to information from sources beyond school. This is an advantage in many ways but also leads to some complex challenges.
 The information exposure is not filtered causing a lot of confusion in the minds of the students. To be able to absorb knowledge from a truly right perspective the minds of the students should be free from any prejudices and should be eager to learn. Several distractions in the form of games, media, etc further render the students unprepared for accepting knowledge in its true spirit.

• The NEP 2020 still maintains the drawbacks that its predecessor policies had; that of lack of differentiation. One size fits all may not work while implementing the holistic and multidisciplinary approach. This is because different students have varied levels of skills and learning capacities and changing the approach may confuse students who are otherwise adept at learning the single disciplinary way.

Parents

• The media has been bombarding parents with information in all forms and manners. The parents of the current generation are informed and like to understand the nuances of what is being taught to their children at school. Too many minds have too many opinions and that is one of the biggest challenges that one can see coming from this group of stakeholders. Parents are anxious to know and understand how the changes will impact the learning of the children and whether the change in approach will prepare the students for the future.

Content & Curriculum

- The existing curriculum does not completely align with the idea of a holistic and multidisciplinary approach to teaching. Subjects are divided with extremely specific learning outcomes which makes taking a multidisciplinary approach difficult.
- The curriculum is still largely based on recalling information rather than the development of skills like critical thinking, logical reasoning, creative thinking, etc.

Recommendations

To overcome the challenges that one can expect in the implementation of the holistic and multidisciplinary approach to teaching the schools must focus on two things: teacher development and curriculum planning. By ensuring that the teachers are provided with adequate support and guidance at every stage of transformation schools will be able to ensure that teaching-learning is holistic and multidisciplinary. Also, this can be further strengthened by adapting the curriculum to the new requirement by integrating subjects and themes in the lesson plan and conducting holistic assessments that are focused on learning.

Conclusion

85 present of the jobs that will exist in 2030 haven't even been invented yet as per a report published by Dell Technologies and authored by the Institute For The Future (IFTF) and a panel of 20 tech, business and academic experts from around the world. The vision of a 'holistic, multidisciplinary approach in education is futuristic and will help in creating individuals who have acquired the right mindset/attitude along with the required knowledge and skills to take on jobs of the future. By changing the dynamics of education to make it more holistic and multidisciplinary, NEP 2020 ensures that the youth of today are ready to take on the challenges of the future world.

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2. Opinion about Reality and myths of NEP 2020 among Few Stakeholders of Education

Dr. Sneha Samant

Assistant Professor, Seva Sadan's College of Education, Ulhasnagar.

Abstract

The National Policy on Education 2020 is a comprehensive network to guide the development of education in our country. The present study aims to find the opinion of reality and myths of NEP 2020 among the teachers working in different schools before its actual implementation. Research design includes online survey using Google form in the form of questionnaires. School teachers working in different schools and now also doing their Masters in Education in distance mode were selected as sample by using convenient sampling technique.

It was found that many teachers are aware about various previous education policies as well as NEP 2020. The opinion of teachers was found to be positive towards NEP 2020 in the online survey conducted by the researcher. When comparing the opinion of teachers from aided and unaided schools it was found the opinion of teachers from aided schools was slightly more positive than teachers from unaided schools. This may be because there is more government control over aided schools since the salary grant is released by the government so teachers from these schools are more aware and abide to implement those policies, than the unaided schools. Also the majorities of teachers were in favor of NEP 2020 and showed interest in its implementation. They also had the opinion that this policy is more comprehensive than the previous education policy though there are few drawbacks which were rightly pointed out by the respondents.

Key words: Reality, Myths, Stakeholders of education

Introduction

The National Education Policy 2020 is a comprehensive network to guide the development of education in our country. The National Education Policy 1964 under the chairmanship of Dr. D. S. Kothari was passed by the Parliament and presented to the nation. Thereafter the 1986 National Education Policy guided education in India. The NEP 2020 was presented to the nation on 29 July 2020, after a gap of 34 years. This new document on education is aimed at building the new generation in an altogether new format adding multidimensional and

vocational training aspects in to the formal education system. Many landmark changes to the existing educational framework have been introduced via this education policy.

The path-breaking reforms of NEP 2020 will usher in a paradigm shift by equipping our students, teachers and educational institutions with the right competencies and capabilities and also create an enabling educational ecosystem for a vibrant new India. It promotes compulsory education, multilingualism, education technology, and improves literacy rate, besides introducing effective governance paving the way for socio-cultural and economic development. The policy heralds a "new India" focusing on "how to think". Contemporary skill oriented syllabi with multiple options, promotions of Indian languages, arts and culture, a single regulator, allocating 6% of GDP funds and increasing GER to 50% are some welcoming changes.

The present study aims to find the opinion about the reality and myths of NEP 2020 among the teachers working in different schools before its actual implementation regarding few aspects of NEP 2020 as follows

- Awareness of previous education policies and NEP 2020
- Structural change
- Language concern
- Multiple entry and exits at graduation level
- Concern about single stream institutions due to multidisciplinary approach
- Over expectations from higher education institutions
- Regulation of fees in higher education
- Job prospects after NEP 2020
- Simultaneous implementation of both education policies
- Autonomy of higher education institutions
- About advantages and disadvantages of NEP 2020.

Need of the Study

The NEP 2020 was proposed and presented to the nation on 29 July 2020, after a gap of 34 years. This new document on education is aimed at building the new generation in an altogether new format adding multidimensional and vocational training aspects into the formal education system. Many landmark changes to the existing educational framework have been introduced via this education policy. So it is very important to seek the opinion of teachers who are the vital part of the stakeholders of education. So it is required to gauge the opinion of the

stakeholders of education sector i.e. teachers on the upcoming New Education Policy i.e. NEP 2020.

Objectives

- 1. To make a set of population aware of the National Education Policy (NEP 2020).
- 2. To study the awareness of teachers about the NEP 2020.
- 3. To gauge the opinion of teachers about NEP 2020.
- 4. To compare the opinion of teachers from aided and unaided schools towards NEP 2020.

Research Design

Methodology

Descriptive Survey Method has been used in the study.

Tool used

In the present study the following tools have been used. (i) Personal Data Sheet developed by the researcher and (ii) An Awareness questionnaire developed by researcher was adopted in this research. An online survey was conducted using Google form. The questionnaire included 20 questions regarding awareness about NEP 2020. It included both open and closed ended questions.

Sample of the Study

School teachers working in different schools and now pursuing their Masters in Education were selected as a sample by using convenient sampling technique. Total 69 respondents responded to questionnaire in the given time period. So the sample size is 69.

Statistical Techniques used

Percentages and Mean were used for interpretation of data.

Analysis and Interpretation

Descriptive Analysis

- 1. Approximately 78.3% of respondents were aware about education policies of 1968, 1986, 1992 and NEP 2020.
- 2. One of the major highlights of the NEP is the replacement of 10+2 structure with 5+3+3+4 structure and 88.4% respondents were aware of it. Present 10+2 structure will be completely replaced by 5+3+3+4 structure corresponding to ages 3-8, 8-11, 11-14, and 14-18 respectively.
- 3. Almost 79% of the respondents believed that grasping concepts in the mother tongue is easier for children at the primary stage although this is not made mandatory in NEP

- 2020. Wherever possible, the medium of instruction until grade 5 (preferably till grade 8 or beyond) will be local/regional language or mother tongue.
- 4. 69.6% respondents are of the opinion that multiple entry and exits in 4 years Bachelor's degree programmer will help students who are financially weak and can't continue studies. This means the recommendation of the NEP, that students leaving an educational course after 1st year will get Certificate, after 2nd year would get Diploma, after 3rd year would get a degree and subsequently on the completion of 4th year a research degree, was accepted.
- 5. Universities and institutes offering single streams like only Science or Commerce or Education will be phased out to multidisciplinary approach in some upcoming years was a recommendation that was supported by 78.3% respondents.
- 6. 89.9% respondents were in favor of the recommendation that top Universities in the world can set up their campuses in India and can collaboratively share faculty, twinning programs, or distance education.
- 7. In our country, higher fees of educational courses is also a major problem because it hinders financially weak students from entering college. 73.9% of the respondents said that the government must come up with some regulations on the same. NEP 2020 has a prime mandate of receiving a target of 100 gross enrollment ratio till 2030at school level. The government needs to address what is the real reason for dropout students on such a large scale. Just estimates and excuses can't pave the path to goals that need to be achieved using NEP, 2020.
- 8. 89.9% respondents opined that top universities of world will collaborate in India to make education at par. Internationalization at university level has been recommended because this will affect the worth of premier institutes like IITS, NITS and IIMs and as for now the private foreign institutes will be out of reach of many.
- 9. In the rapid changing world, people with conventional skills are slowly losing out jobs and 89.9% of the respondents believed that the changes would impact the jobs of the people who are linked to the education sector but also opined that assurance of jobs after vocational courses is needed to boost situation of employment in India.
- 10. 84.1 % respondents had opinion that reduction in the syllabus to core essentials with experimental learning and critical thinking will lessen the burden and stress on students

- for gaining a higher percentage of marks and reduce mishaps such as suicides and depression due to stress of studies. It will lead to joyful and stress free education.
- 11. NEP, 2020 facilitates all capacities of human beings –aesthetic, intellectual, social, physical, emotional and moral in an integrated manner. 55.1% of the respondents feel that NEP would create 'Jack of all Trades but masters of none' i.e. people without expertise in any field. Anita Priyadarshini and Deeksha Dave revealed existing system loopholes and suggestions for promoting holistic and multidisciplinary education through open and distance learning to realize the actual vision of NEP,2020.
- 12. 82.6 % of respondents said that NEP 2020 tends more towards providing autonomy to higher education institutions since it provides more freedom in education aspects such as curriculum, teaching-learning and evaluation as per the local requirements.
- 13. 87% respondents were in favor of NEP 2020 while 76.8% opined that this policy is more comprehensive than previous education policy.
- 14. Few advantages listed by majority of respondents were NEP 2020 will help students to develop scientific temper from a young age. The NEP aims to make it easier to set up new quality of higher educational institutes which will be at par with the global standards. Children will be free to opt for their favourite career. It will boost economy power and improve quality of teaching. The competitive nature will lesser as students will have alternatives. The children in classes from 9 to 12 will now have multidisciplinary course options available to them, which means that the different streams will be more porous with various subject combinations. Any student will be able to take up subjects of their interest, even if they are outside of their core discipline without strict adherence to the streams of Arts, Science and Commerce. Eg a science student will be able to study history and an art student shall be free to pursue biology.
- 15. Few disadvantages listed by majority of respondents were In the National Education Policy 2020, language is a challenging factor as there is a problematic teacher to student ratio in India, thus introducing mother tongue/local languages for each subject in academic institutes is a problem. Another challenge is developing study material in mother tongue/local languages. According to the National Education Policy 2020, students willing to complete their graduation have to study for four years while one can easily complete his/ her diploma degree in two years. This might encourage the pupil to

leave the course midway. Students of the private schools will be introduced to English at a much earlier age than the students of the Government schools. The academic syllabus will be taught in the respective regional languages of the government school students. This is seen as one of the drawbacks by respondents as this will increase the number of students uncomfortable in communicating in English thus widening the gap between sections of the societies.

Inferential Analysis

Objective: To gauge the opinion of teachers about NEP 2020.

Interpretation: Total 17 questions were asked seeking opinion regarding various important aspects of NEP 2020.

The mean of opinion was found to be 75.94%. As per the scale shown below, the opinion of teachers found to be positive towards NEP 2020.

Table No. 1-Norms for level of opinion towards NEP 2020

	No. of students= 69		
Level Of opinion	Yes	No	
	(% Mean)	(% Mean)	
Very Positive	above 80%	Below 20%	
positive	51% - 80%	21%- 50%	
Negative	21%- 50%	51% - 80%	
Very Negative	Below 20%	above 80%	

Following norms were used for interpretation and conclusion regarding opinion of teachers regarding NEP 2020.

Objective: To compare the opinion of teachers from aided and unaided schools towards NEP 2020.

Interpretation

In Table 2, the calculated % of means shows that opinion of teachers from both aided and unaided sections is positive towards NEP 2020.

Table 2 – Showing means of the opinion towards NEP 2020.

Sr, No	Type of school	N	Yes	No
			% of mean	% of mean
1	Aided	24	78.17	21.83
2	Unaided	45	73.07	26.93

But since the mean (%) of teachers from aided schools was found to be 78.17 and that of teachers from unaided schools was found to be 73.07%. So it was interpreted that the opinion of teachers from aided schools was slightly more positive than teachers from unaided schools.

Conclusion and Discussions

As of March 2021, India has 425 state universities 125 deemed to be universities, 54 central universities and 375 private universities which clearly depict that the education ministry has to take strong and challenging decisions to implement new education policy at grassroots level. It was found that many teachers are aware about various previous education policies as well as NEP 2020. The opinion of teachers was found to be positive towards. NEP 2020 in the online survey conducted by the researcher. When comparing the opinion of teachers from aided and unaided schools it was found the opinion of teachers from aided schools was slightly more positive than teachers from unaided schools. This may be because there is more government control over aided schools since the salary grant is released by the government so teachers from these schools are more aware and abide to implement those policies as compared to teachers teaching in the unaided schools. Also the majorities of teachers were in favor of NEP 2020 and showed interest in its implementation. They also had the opinion that this policy is more comprehensive than the previous education policy though there are few drawbacks which were pointed out by the respondents.

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3. Multidisciplinary Education in NEP 2020 - A Theoretical Overview

Dr. Mabel Pimenta

Principal, Pushpanjali College of Education, Vasai.

Abstract

In ancient India Multidisciplinary education was not an educational philosophy but it was a substantial way of knowing the world. During post-independence era the Union Government of India has founded three education commissions and two policies to prepare the proposals to modernize the education systems of India for the development of human resources and economic upliftment. After the National Policy of Education 1986, NEP 2020 was ready for implementation. Higher Education is an important thrust Area of NEP 2020. The Policy aims to transform higher education by making it more inclusive, holistic, and multidisciplinary in nature. The focus of NEP 2020 is on development integrated individuals well versed in knowledge and skills with a strong foundation of morals and ethics. This integrated approach can make students more marketable in global workforce. For setting up of multidisciplinary HEIs NEP 2020 suggests three approaches- collaboration, merger and strengthening of HEIs. The ultimate aim of NEP 2020 is to transform all HEIs into multidisciplinary institutions by 2030. The most important part of this new policy is the focus on Indian Culture which will lead to developing better citizens for the country.

Key Words: Multi-disciplinary Education, Holistic Education, Four Year Degree Programme.

Multidisciplinary Education in Ancient India

India has an ancient tradition of multidisciplinary education and holistic learning, from universities such as Takshashila and Nalanda, combining subjects across fields. Banabhatta's Kadambari, ancient Indian literary works is comprised of knowledge of the sixty four arts, thus holistic in nature. These sixty four arts include the following: fine arts- singing and painting, sciences - chemistry and mathematics, vocational fields- carpentry and clothes-making, professions-medicine and engineering, soft skills-communication, discussion, and debate. The very idea that all branches of knowledge and skills of creative human endeavor should be

considered arts has distinctly Indian origins. Students in Gurukuls were trained in sciences like medicine, mathematics and astronomy, social sciences such as law, politics. Education included fine arts and the art of warfare along with other vocational skills. Emphasis was also laid on ethics such as humility, truthfulness, self-reliance, discipline, and all other aspects of life. Multidisciplinary education was not an educational philosophy but it was a substantial way of knowing the world. In the era of 21st Century the term 'arts' is coined as 'Liberal Arts' by the Western Universities must be brought back to Indian education to lead the country into the fourth Industrial revolution.

History of Education Commissions and Policies in India

During post-independence era the Union Government of India has founded three education commissions and two policies to prepare the proposals to modernize the education systems of India for the development of human resources and economic upliftment.

- The University Education Commission (1948-49)
- The Secondary Education Commission (1952–1953)
- The Education Commission (1964–1966)
- National Policy of Education 1968
- National Policy of Education 1986
- National Education Policy 2020

Introduction of NEP 2020

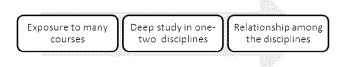
The objective of NEP is to promote holistic, experiential, discussion-based, and analysis-based learning. It also talks about a revision of the curriculum after long time. Change in structure 10 + 2 + 3 system to a 5 + 3 + 3 + 4 system. There is an effort to optimize learning based on the cognitive development of children. On July 29, 2020, the cabinet approved a NEP to introduce numerous changes to the prevailing education system of India. Appropriate and liberal, the NEP 2020 scripts a significant change in our education system.

Higher Education an important Thrust Area of NEP 2020

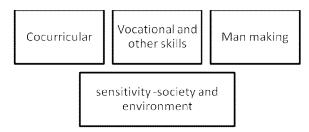
In Higher Education, due to lack of multi-disciplinary approach and flexibility with regards to subject choice, assessment and a skill-gap, dropout rate is also increasing in higher education institutions. Gross Enrolment Ratio (GER) is decreasing (26.3 percent the year 2018) and remained comparatively low in middle and secondary education. It means many students are

not enrolling in higher education. Hence, the policy mainly focuses on to minimizing dropout rate and increasing GER in higher education institutions.

What is Multidisciplinary Education?



What is Holistic Education?



Aims of Multidisciplinary Education in National Education Policy 2020

- To transform higher education by making it more inclusive, holistic, and multidisciplinary in nature
- To increase Gross Enrolment Ratio in higher education (including vocational education) from 26.3% (2018) to 50% by 2030.
- To develop well-rounded individuals who possess multifaceted functional capacities.
- To seek a good balance between knowledge and interpersonal attributes.
- To set up MERUs (Multidisciplinary Education and Research Universities) will aim to attain the highest global standards in quality education.
- To develop integrated individuals well versed in knowledge and skills with a strong foundation of morals and ethics. This integrated approach can make students more marketable in global workforce.
- To integrate Arts stream with STEM (Science, Technology, Engineering, and Mathematics) to increase the happiness and well-being of students.

Variety in Four Year Degree Programmes in Multidisciplinary HEIs

Students can achieve degree in one disciplinary or interdisciplinary area and/or in combination with two or more disciplines of their choice based on their interest and aptitude that are mentioned below:

- Major Degree- Disciplinary or interdisciplinary
- Minor Degree- Disciplinary or interdisciplinary
- Ability enhancement courses-such as languages
- Skill enhancement courses-such as fine art
- Value added courses-like life skills
- Research

Flexibility in Multidisciplinary Education

Due to variety in disciplines it has scope for flexibility. Students can opt for various combinations of degrees such as-

- Single major
- Double major
- Interdisciplinary Programme
- Disciplinary or interdisciplinary minors
- Minor stream relating to vocational education

Approaches towards Setting up of Multidisciplinary HEIs

A. Collaboration

Academic collaboration between institutions leading to Multidisciplinary education and research.

B. Merger

Single stream institutions can be merged with other Multidisciplinary institutions run by the same or different management

C. Strengthening of Institutions

It can be done by adding various streams and subjects needed for Multidisciplinary education

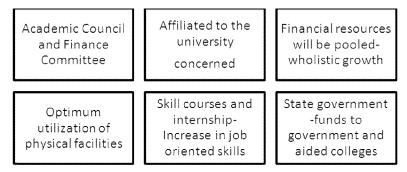
Let us understand the three approaches in detail:

A. Academic collaboration between institutions leading to Multidisciplinary education and research

1. Institutional Collaboration to Award of Dual - Major Degree: In this collaboration, single-stream can integrate their courses with those of nearby Multidisciplinary institutions to enhance own courses.

- 2. The Multidisciplinary Institutions Can Seek Collaboration with Single: stream institutions to enhance their existing programmes. This novel educational structural arrangement will strengthen the Multidisciplinary education. For example a B.Ed. course and a B.Sc. course in collaboration leads to award of dual major degree B.Sc. B.Ed. (Integrated Teacher Education Programme) HEIs need to submit proposals to offer dual- major bachelor's programme to the concerned regulatory body for approval. When two institutions collaborate it should be possible for the students and teachers to share physical and human resources, and ensure student and faculty mobility. The institutions will enter into written Memorandum of Understanding (MOU). The MOU must include the purpose and related provisions of collaboration such as planning of infrastructure, number of students' intake, administration, academic and research activities, tuition fees, etc.
- **3. Collaboration between Two Institutions to Award of Dual Degree:** The institution which will enroll the students and complete the first degree is a host and the other institution from which the student will complete the second degree is a partner institution. Both the institutions need to take approval of the university, state government and/or regulatory bodies with respect to number of students, award of degree and modalities of transition from one institution to another. After seeking approval both the institutions can sign an MOU.
- **4. Cluster of Colleges :** The existing colleges functioning in the same campus or in close proximity can form a cluster and transform into a multidisciplinary institution. In this restructuring single-stream institutions and multidisciplinary institutions with lower enrollment will benefit in terms of more dynamic courses and better facilities for all. The cluster colleges can offer courses in collaboration with universities, renowned government institutions, reputed industrial centers and also seek online and ODL courses.

The Cluster Colleges Will have the Following Features



B. Merger of HEIs

1. Under the same Management: Institutions functioning under same managements may merge for optimal use of the academic and physical resources and to offer multidisciplinary education.

The managing trust of the institutions need to submit an undertaking declaring that the institutions under its management will merge according to the rules of the State government, affiliating university and/or the regulatory body.

2. Under different Managements: Institutions functioning under different managements may merge as per the procedure of the Societies Registration Act or Trust Act, as the case may be. A private institution willing to merge with a single stream institution or multidisciplinary institution of another registered society, may apply, with the approval of the affiliating university, to the society of the institution to be merged with and become a part of it.

C. Adding New Departments

The Policy on 'Holistic and Multidisciplinary Education' focuses on pulling of courses and resources from a variety of disciplines and providing flexibility to students to choose courses. So that holistic individual development takes place in intellectual, social, physical, emotional and moral dimensions of the learners. The policy will make sure that 21st century competencies such as critical thinking, problem solving, communication, leadership, team work, creativity and innovation are fully developed and put to practice. The teaching-learning has to be linked to life, community and the world of work, environment across all disciplines, including STEM education.

Establishment of Department of Education in Multidisciplinary Institutions

The NEP 2020 visualizes establishment of one Education Department in colleges/universities/ HEIs to contribute to multidisciplinary and holistic education and to contribute to research and development in these areas.

Section 15 of NEP 2020 underlines three purposes:

- i. To conduct cutting-edge research in various aspects of education,
- ii. To support the actualization of all teacher education in multidisciplinary institutions and
- iii. To contribute to multidisciplinary and holistic higher education across disciplines.

In stand-alone Teacher Education Institutes (TEIs)

All existing stand-alone TEIs must aim to become multidisciplinary HEIs. This will bring about a major transformation in the preparation of appropriately qualified teachers by ensuring high-quality training and exposure to teacher trainees for multidisciplinary education. Because teacher education requires multidisciplinary inputs, all programmes for the initial preparation of professionally trained teachers will be moved into multi-disciplinary HEIs in a phased manner. Currently, most TEIs are stand-alone institutions. This has led to the intellectual and professional isolation of teacher education and their faculty from the rest of the disciplines.

Education Departments in Multidisciplinary HEIs

Multidisciplinary universities and multidisciplinary colleges must also aim to establish departments in education, which aside from carrying out teaching and research, can also offer four-year integrated programmes, in collaboration with other departments such as Psychology, Philosophy, Sociology, Neuroscience, Indian languages, Arts, History, Literature, Science and Mathematics.

Challenges in establishment of Multidisciplinary HEIs

- Financial difficulties to pool corpus fund
- when both the institutions have different status-aided and unaided
- To come to consensus while preparing MOU
- Proximity of the stand alone institutions
- Appointment of faculty

Conclusion

The focus of this policy is to humanize the system of education with an emphasis on humanities-related disciplines using multi-disciplinary and inter-disciplinary approaches it enables a student entering a profession can learn some subjects of humanities. This policy has got an emphasis on vocational skills to meet the growing job needs and increase employability. This policy is considering the 'Teacher Training' as a foundation. The flexibility and transferable credit banks in the present policy would take care of high dropout levels.

The most important part of this new policy is the focus on Indian Culture which will lead to developing better citizens for the country. With NEP 2020, it is expected to have innovation the education scenario in nearby future and this will take India towards becoming a superpower in the field of education.

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4. Effective Governance and Leadership in Educational Institutions

Dr. Dnyaneshwar M. Paradkar

I/C Principal, Sir, J. P. College of Education & Research, Palghar.

Abstract

Achieving the institution's vision, mission, and goals as well as fostering the organization's culture requires effective leadership through establishing values and a participatory decision-making process. In order to coordinate academic and administrative planning and implementation, the institution has official and informal structures in place. These arrangements reflect the school's attempts to realize its vision. The study focuses on effective governance and leadership in educational institutions in the light of National Education Policy 2020 (NEP 2020). This National Education Policy 2020 is the first education policy of the 21st century and aims to address the many growing developmental imperatives of our country. This Policy proposes the revision and revamping of all aspects of the education structure, including its regulation and governance, the study focuses on the provisions made in the NEP 2020 for an effective governance and leadership in educational institutions.

Key Words - Governance, leadership, NEP 2020.

Introduction

There are many factors which contribute in effective performance of the higher education institutions. Among them effective governance and leadership are the most important factors, so in the NEP 2020 special attention paid towards governance and leadership. Governance is nothing but the way in which a institution is being managed at the highest level and purpose is to achieve the goal decided by the institute. If we want to create a culture of creation and innovation in the higher educational institutions it is strongly recommended in the NEP 2020 to ensure to establish strong self-governance and outstanding merit based appointments of institutional leaders.

The presence of outstanding and enthusiastic institutional leaders that cultivate excellence and innovation is the need of the hour. Outstanding and effective institutional leadership is extremely important for the success of an institution and of its faculty. Excellent faculty with

high academic and service credentials as well as demonstrated leadership and management skill should be identified early and trained through a ladder of leadership positions to result in the good governance and quality improvement in the higher education.

Importance of Good Governance

Good governance is a major factor in improving the quality of higher education. To bring expected changes in the field of higher education through governance NEP 2020 has made the provision to establish Board of Governors (BoG) which consists of highly qualified, dedicated individuals having proven capabilities and strong sense of commitments to the institutions.

Characteristics of Good Governance

Following are the characteristics of good governance. Good governance generally means looking after the welfare of all in all respects. In the fundamental principles which are laid down by the NEP 2020 for quality education, good governance is the most important principle. Governance of HEIs by high qualified independent boards having academic and administrative autonomy is expected in the new policy.

1. Participation

Participation of the people, faculty and management either direct or indirect in the developmental and decision making process is one of the corner stones of the good governance, so more emphasis is given in the participatory governance in the NEP 2020.

2. Efficiency and Effectiveness

It is effective governance and leadership that enables the creation of a culture of excellence and innovation in higher education institutions. The common feature of all world-class institutions globally including India has indeed been the existence of strong self-governance and outstanding merit-based appointments of institutional leaders.

3. Responsiveness

Governance must have the capacity and flexibility to respond quickly to the changes taking into account the expectations of the nation. In NEP 2020 effective governance on the basis of accreditation and gradation is proposed to bring desired changes in the higher education.

4. Equity and Inclusiveness

Full equity and inclusion is necessary as the cornerstone of all educational decisions to ensure that all students are able to thrive in the education system. Entry into quality higher education can open a vast array of possibilities that can lift both individuals as well as

communities out of the cycles of disadvantage. For this reason, making quality higher education opportunities available to all individuals must be among the highest priorities. This Policy envisions ensuring equitable access to quality education to all students, with a special emphasis on SEDGs.

Leadership

The term leadership has been variously defined in the literature on the strategic management. According to Bijur (2000) "Leadership means enhancing human potentials" It is about creating right environment for people to develop as leaders.

According to Laurie (1997) leadership involves three fundamental tasks.

- a. Creating a holding environment
- b. Directing, protecting and orienting
- c. Ensuring unity.

So education is fundamental for achieving full human potential, developing an equitable and just society, and promoting national development. Providing universal access to quality education is the key to India's continued ascent, and leadership on the global stage in terms of economic growth, social justice and equality, scientific advancement, national integration, and cultural preservation. Universal high-quality education is the best way forward for developing and maximizing our country's rich talents and resources for the good of the individual, the society, the country, and the world. India will have the highest population of young people in the world over the next decade, and our ability to provide high-quality educational opportunities to them will determine the future of our country. School principals and school complex leaders will have similar modular leadership/management workshops and online development opportunities and platforms to continuously improve their own leadership and management skills, and so that they too may share best practices with each other. Such leaders will also be expected to participate in 50 hours or more of CPD modules per year, covering leadership and management, as well as content and pedagogy with a focus on preparing and implementing pedagogical plans based on competency-based education (NEP 2020).

It is also recommended in the NEP 2020 to have shorter post-B.Ed. certification courses that will have to be made widely available, at multidisciplinary colleges and universities, to teachers who may wish to move into more specialized areas of teaching, such as the teaching of students with disabilities, or into leadership and management positions in the schooling system,

or to move from one stage to another between foundational, preparatory, middle, and secondary stages.

Role of a Leader in HEIs

Leaders in higher educational institutions must ensure that they coach / mentor their faculty to empower faculty and academic staff to develop leadership skills. It has dual benefits; one it allows existing leaders to support those who are keen to becoming future leaders and it enables leadership to focus training and professional development on the most critical needs of the Institution. Today, embracing continuous professional development is critical for faculty members to survive and succeed. It helps leaders to master new disciplines, understand the needs of their Institute and stakeholders better and create a better learning environment. And of course, in becoming better decision makers as well.

Importance of effective leadership in HEIs

The presence of outstanding and enthusiastic institutional leaders that cultivate excellence and innovation is the need of the hour. Outstanding and effective institutional leadership is extremely important for the success of an institution and of its faculty. Excellent faculty with high academic and service credentials as well as demonstrated leadership and management skills will be identified early and trained through a ladder of leadership positions. Leadership positions shall not remain vacant, but rather an overlapping time period during transitions in leadership shall be the norm to ensure the smooth running of institutions. Institutional leaders will aim to create a culture of excellence that will motivate and incentivize outstanding and innovative teaching, research, institutional service, and community outreach from faculty members and all HEI leaders.

Conclusion

The NEP 2020 brings in a new approach. Towards this aspect, the NEP focuses on institutional leadership and self-governance. A Board of Governors (BoG) will be established for institutions that have received the appropriate graded accreditations that deem the institution ready for such a move. It will consist of highly qualified, competent, and dedicated individuals having proven capabilities and a strong sense of commitment to the institution. Another aspect is the stress on self-governance. Through a suitable system of graded accreditation and graded autonomy, and in a phased manner over a period of 15 years, all HEIs in India will aim to become independent self-governing institutions pursuing innovation and excellence. The Board

of Governors of an institution will be empowered to govern the institution free of any external interference, make all appointments including that of head of the institution, and take all decisions regarding governance. It is envisaged that all HEIs will be incentivized, supported, and mentored during this process, and shall aim to become autonomous and have such an empowered Board of Governors by 2035. All leadership positions and Heads of institutions will be offered to persons with high academic qualifications and demonstrated administrative and leadership capabilities along with abilities to manage complex situations. Leaders of an HEI will demonstrate strong alignment to Constitutional values and the overall vision of the institution, along with attributes such as a strong social commitment, belief in teamwork, pluralism, ability to work with diverse people, and a positive outlook.

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5. Role of NEP 2020 in Transforming Education System in India

Dr. Sujana Florence

Assistant Professor, Guru Nanak College of Education and Research, Mumbai.

Abstract

The National Education Policy 2020 (NEP 2020), proposes revising all aspects of the education structure, to create a new system to address the needs of world class education. The policy aims to transform education system in India, and reframed the structure of education from elementary Education to higher education by 2030. The policy recommends teachers to take-up teaching profession as their first choice by joining 4 years integrated B.Ed. program, Which ensures that all students at all levels of school education are taught by passionate motivated, highly qualified, professionally trained and well-equipped teachers¹. Gradually stand-alone Teacher Education institutions need to become part of multidisciplinary educational campus.

Keywords: The National Education Policy 2020(NEP 2020), education, teaching, teacher, integrated, training, changes.

Introduction

Education is the act of teaching and learning, but in broader sense, education is a continuous social process which refines the development of inner forces about human behaviour. The role of a teacher is basically to transact curriculum by delivering classroom based instructions that helps students learn the content. A traditional view of the teacher's role was a giver of knowledge- which is 'fixed' and able to be 'transferred'. It is the need to transform Indian class rooms and methodologies which are used to transact curriculum. It changes the role and approaches of Indian teachers.

It is rightly said, 'A teacher is a compass that activates the magnets of curiosity, knowledge and wisdom.' Teacher not only disseminates knowledge but plays a huge role in shaping and moulding the lives of the next generation of citizens by working on their shortcomings, regularly monitoring the progress of the students, appreciating and developing skills and enhancing talents. It is the need for the teachers to focus on the all-round development of the students, teaching is not just confined to bookish knowledge. It is the need of the hour that

teachers are expected to take-care of the social and emotional needs of a diverse learner population.

The teacher's role may have changed at the present time, but the importance and responsibility of personality-building has become more relevant. It is very difficult to walk with the world and to sustain oneself without the enhancement of all-round ability, According to Mahatma Gandhi, all-round development means – soul, brain, speech and deeds-all of them should be in balance.²

It is the need to transform Indian education system to achieve world class education in India and to make our students competitive and face the future challenges with confident. Through education, with increasing knowledge and skills, human beings are made responsible citizens with values.

Highlights of 'The National Education Policy 2020' and Changes in School Education

Teachers play an important role in shaping the future of our children- ultimately the future of our nation. Teachers should be motivated and empowered to ensure the best possible future for our children and ultimately our nation.³

- Teachers who receive quality education and training provide and maintain quality in Education. It is important for teachers to prioritise and take teaching as profession, than those who opt for teaching as a last choice. As NEP 2020 recommends 'Encourage the very best and most learned to become teachers'. As like doctors and engineers choose medical/ engineering courses after twelfth std., teachers also to choose 4-years integrated B.Ed. to become teachers- as becoming teacher should be of choice not by an option.
- To maintain high standards in the field of Education, NEP 2020 suggests to institute Merit-based scholarships to ensure outstanding students to enter teaching profession by studying quality 4- year integrated B.Ed⁴.
- As India is multicultural, pluralistic country, it is important to preserve and encourage
 the diversity and cultures of our country. It's necessary to facilitate highly qualified
 individuals who speak the local language to become teachers in rural areas which
 enhances local job opportunities to local students.
- Excessive and frequent teacher transfers need to be halted to provide continuity in educational environments to enhance effective teaching learning.

- To maintain high standards in school education, qualified, trained and competitive
 candidates should be selected as Teachers. It is necessary to continue teacher
 recruitment based on 'Teacher Eligibility Tests (TETs) in order to maintain quality in
 terms of content and pedagogy for all stages of school education including private
 schools'.
- It's important to encourage and preserve local/ traditional/ cultural values local experts
 can be hired as 'master instructors' in subjects such as in traditional local arts,
 vocational crafts, entrepreneurship, agriculture, etc. to help preserve and promote local
 knowledge and professions'.
- As teacher recruitment plays an important role in quality education, technology-based comprehensive teacher-requirement should be conducted by keeping in mind subjectwise teacher vacancies over the next two decades to align Teacher education programmes in accordance with the projected vacancies.
- The primary goal is to maximize the ability and quality of teachers' in doing their jobs efficiently and to ensure that the children are learning effectively.
- As methodology/ strategy plays an important role in effective teaching learning program, teachers should be given more autonomy in choosing aspects of pedagogy which is more suitable for the particular classroom/ students. Teachers need to be recognized for implementing novel approaches in teaching to improve learning outcomes in their classrooms.
- Teaching doesn't mean just transfer of knowledge it needs teachers to focus on socioemotional learning as it is the critical aspect of any student's holistic development.

Continuous Professional Development (CPD)

- The need of the hour for teachers is to upgrade their content and pedagogy in order to cope-up with the changing needs and demands of in the field of education. Teachers should be given opportunities for continuous and self-improvement to learn the latest innovations and advances in their professions and also usage of technology for effective teaching.
- To recognize and appreciate teachers 'outstanding works, consider for promotion/ implement incentives as encouragement.

Special Educators

- There is an urgent need for special educators for children having disabilities/ Divyang/ specific learning needs at Middle and Secondary school level.
- Special education is educating students with special needs in a way that addresses their individual differences and needs.

The National Education Policy 2020 and Approach to Teacher Education

- Recognizing that the teachers require training in high-quality content as well as
 pedagogy, teacher education institutions need to be gradually moved from isolated
 teacher education institutes into multidisciplinary campuses by 2030. Teacher
 education institutions cannot stand alone to achieve the objectives effectively, as the
 functioning is closely associated with the functioning of schools as well other higher
 education institutes.
- In order to improve the content and pedagogy of the future teachers, the minimum degree qualification for teaching will be a 4-year integrated B.Ed.degree that teaches a range of knowledge, content and pedagogy and includes strong practicum training in the form of student-teaching at local schools.⁵
- But, at the same time, 2-year B.Ed. programmes will also be offered for those who have already obtained Bachelor's Degrees in specialized subjects. It provides an opportunity for the graduates also to take-up teaching profession.
- B.Ed. programmes need to include training in the recent techniques in pedagogyfoundational literacy and numeracy, multi-level teaching and evaluation, to address the
 need of teaching children with disabilities, children with special interests or talents, use
 of technology in education, and learner-centered and collaborative learning.
- As internship is the backbone of any teacher training programmes, all B.Ed.
 programmes need to include training in practicum/ internship teaching at local schools.
- All B.Ed. programmes need to emphasize, inculcate and practice the Fundamental Duties/ core values mentioned in Article 51A of the Indian Constitution along with other Constitutional provisions while teaching or performing activities. Integration of environmental awareness, sensitivity towards conservation of environment and sustainable development through teaching or activities, to make environment education an integral part of school curricula.

Teacher Education

- Teacher education prepares pool of young future schoolteachers who shapes the future generations. Teacher preparation requires multidisciplinary perspectives enriched with values, and practice under the best mentors.
- It is the must that teachers be grounded in Indian values, languages, culture, etc. and having knowledge about latest advances in education and pedagogy. As like the quote, 'a lamp can never light another lamp unless it continues to burn its own flame'- unless teachers have such experience, they cannot inculcate among the learners.
- It is the urgent need to raise the standard and quality of the teacher education system in order to fully restore the prestige of the teaching profession to serve purpose to fulfil the changing needs and future demands. It requires multidisciplinary inputs, high-quality content in education and appropriate pedagogy. So it is the need to conduct all teacher education programmes within composite multidisciplinary institutions.
- It is suggested to establish scholarships for attracting meritorious and outstanding candidates to the 4-year, 2-year, and 1-year B.Ed. programmes.
- As internship and classroom teaching practice is the basic requirement of teacher education institutions, each higher education institution need to have the network of government and private schools to work closely and to conduct activities like community service, vocational education, etc.
- Admission to B.Ed. programmes should be based on suggested aptitude tests in order to maintain uniform standards for teacher education programmes by considering linguistic and cultural diversity of the country.
- Faculty having training in social sciences and science, mathematics, social science, and language education programmes should be retained in teacher education institutions in order to strengthen multidisciplinary education of teachers which promotes conceptual development.
- In-service continuous professional development related ongoing initiatives for college and university teachers should be continued, strengthened and expanded to meet the needs of enriched teaching-learning processes for quality education.

- To administer standardized training programmes to large numbers of teachers within a short span of time, usage of technology platforms such as SWAYAM/ DIKSHA for online training of teachers should be encouraged.
- National Mission for Mentoring to be established, to have large pool of outstanding/ experienced faculty to provide short and long-term mentoring to faculty.
- Prioritize 'multi-disciplinary' thinking:
- NEP suggests multi-disciplinary approach in education will be more effective and useful. For eg. The topic 'Urban Planning' be taught by a range faculty members from engineering to liberal arts. Embracing multi-disciplinary learning leads to more career opportunities.
- Embrace technology in the classroom:
- Paradigm shift in classroom teaching is encouraged to increase pupil participation to promote using suitable methodologies for effective teaching. Teachers who have adopted online teaching due to Covid-19 crisis can elevate their impact by exploring hybrid classroom by usage of 'flipped classrooms,' pre-recorded videos can be shared as course lectures to utilise technology in education. Teachers have the opportunity to use technology for effective teaching to benefit every student.
- Make Indian students 'lifelong learners':
- Teachers have the power and influence to spark curiosity and creativity to help the students to explore and ask questions and having major role in fostering a mind-set of lifelong learning. Teachers can bring this shift by making their learning interactive and encouraging children to share knowledge and promote thinking.

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6. Perception of School Teachers Regarding NEP 2020

Dr. Agnes DCosta

Associate Professor, Pushpanjali College of Education, Vasai.

Abstract

National Education Policy (NEP) 2020 is considered a path breaking document in Indian education. Many recommendations contained in the document will leverage India into vibrant knowledge economy. The success of the same depends on many factors and teachers will play a vital role in actualizing the vision of NEP2020. This paper attempts to analyse the perception of school teachers towards NEP 2020 and decipher the steps being taken by teachers to contribute meaningfully towards the fundamental principles enshrined in the document.

Key words: NEP 2020, perception of teachers

Introduction

National Education Policy (NEP) 2020 envisions that the education system will transform India that is Bharat into 'an equitable and vibrant knowledge society, by providing high-quality education to all, and thereby making India a global knowledge superpower'. The Policy was announced on 29 July 2020 and over the past two years many programmes have been initiated to move towards the vision. Concerted and connected efforts by the government, apex bodies like Ministry of Education, NCERT along with efforts by educational institutions will play a major role in meeting this vision. Since teachers have a vital role to play, it is necessary to examine their perceptions and also study the efforts made by teachers to understand NEP 2020 and work towards its implementation. This paper is based on a study which includes the inputs received from teachers teaching in Secondary Schools.

Title of the Study

The title of the study is 'Perception of School Teachers regarding NEP 2020'.

Objectives

- 1. To study the efforts made by teachers to understand NEP 2020
- 2. To study the perception of teachers regarding moving away from rote learning
- 3. To identify the challenges that teachers face regarding the use of experiential learning
- To study preferences of teachers regarding their continuous professional development 4.

- 5. To ascertain the efforts made by teachers to ensure holistic, integrated, enjoyable and engaging learning
- 6. To identify steps that teachers intend to take up in order to put into action recommendations of NEP 2020
- 7. To ascertain the expectations that teacher have from their institutions regarding the actualization of NEP 2020

Methodology

The study is based on a survey conducted on school teachers and uses the inductive approach to research. Inductive research¹ involves collecting data relevant to the topic of interest. Once substantial data is collected, the researcher looks for patterns in the data and seeks to explain those patterns. Inductive research is exploratory in nature and hence it has objectives. However hypotheses have not been formulated as the study is just a preliminary exploration.

Tool used in the Study

The investigator has created a tool consisting of a checklist with a total of 27 items and containing the following sections.

- a. Teacher's efforts to understand NEP 2020
- b. Perception of teacher regarding moving away from rote learning
- c. Challenges faced in the use of experiential learning
- d. Preferences regarding teachers' Continuous Professional Development
- e. Efforts made by teachers for holistic, integrated, enjoyable and engaging learning The tool also had two open ended questions which sought information on
- i. Actions that teachers propose to undertake to meet the recommendations of NEP 2020
- ii. Teachers' expectations from their schools reading actualization of NEP 2020 The tool has not been standardized because the study is exploratory at present. With the preliminary findings obtained, the tool can be further refined and validated for wider circulation.

Sample

The sample consisted of 34 school teachers teaching in schools affiliated to State Board, CBSE and ICSE Boards. The sample includes teachers teaching Languages, Social Sciences, Mathematics and Science. Convenience sampling was used for gathering data. All teachers had between 2 to 10 years of teaching experience.

Findings of the Study (Note: Respondents Were Free to Choose More than One of the Indicated Options.)

- 1. The respondents were asked the means through which they keep themselves informed about the National Education Policy and its recommendations. Since one can be informed about the document from varied sources, respondents were permitted to choose multiple options. 41.2% teachers had attended seminars or discussions on NEP2020, 52.9% had read the document themselves. 50% respondents got inputs from social media. 32.4% said that they gained an understanding of NEP 2020 from their peers.
- 2. NEP 2020 recommends that education must move away from rote learning. The respondents were asked how they could ensure this shift. 61.8% said that the examination pattern needs changes. 55.9% felt that teachers need to be better trained in use of engaging methods. 73.5% said that use of critical thinking during teaching will facilitate a shift from rote learning. 64.7% said that textbooks must include content that does not emphasize rote learning. 88.2% teachers said that schools need to be better equipped so that there is a shift from rote learning.
- 3. NEP 2020 suggests use of experiential learning. The teachers were asked what challenges they experience in the use of experiential learning. 50% teachers said that there is lack of resources for meaningful experiential learning. 17.6% teachers felt that they do not have adequate knowledge of the proper use of experiential learning. 70.6% teachers said that the focus on marks is a big challenge to use of experiential learning. 50% teachers point out to large numbers as one of the hurdles in use of experiential learning. Lack of adequate time was cited by 64.7% teachers, 23.5% teachers said that learner diversity in the class can be a challenge while designing experiential learning. 52.9% learners said that the evaluation system is largely based on rot learning and hence this is an impediment to use of experiential learning.
- 4. NEP 2020 suggests that every year teachers must participate in at least 50 hours continuous professional development. Multiple means can help in continuous professional development and hence teachers were asked for their preferred choices to be professionally developed. 61.8% teachers preferred to attend courses or programmes in their own school. 61.8% teachers felt that they would like to use

- online courses to be professionally developed. 61.8% teachers were open to taking up action research to try new strategies in teaching learning. 29.4% teachers said that attending courses organised by government bodies would help in continuous professional development.
- 5. NEP 2020 emphasizes that learning must be holistic, integrated, engaging and enjoyable. The teachers were asked to share the means they use to ensure the same. Use of cross curricular pedagogic approaches like integration of art and sports in learning was reported by 47.1% teachers. 38.2% use game based pedagogy. 73.5% teachers emphasize correlation with other subjects. 20.6% report that they regularly take students on field trips. Only 5.9% teachers said that examinations are their prime focus.70.6% teachers report that while planning their lessons they incorporate higher order thinking skills.
- 6. Teachers were asked to share the steps that they intend to take up to put into action the recommendations of NEP 2020. This section invited open ended responses. The steps that teachers propose to undertake were analysed and collated area wise. A brief summary of the same is presented in tabular form.

Area of proposed action	Endeavours that teachers propose to undertake
Teaching –learning process	integrate more of inquiry based learning
	provide hands on learning experiences
	integrate vocational subjects into the teaching
	learning process
	encourage exploratory learning
	incorporate use of regional language or mother
	tongue to facilitate learning
	integrate real life experiences in teaching
	incorporate game based pedagogy,
Evaluation	incorporate stress-free evaluation like open book
	test and student portfolio
	shift from mark oriented performance to learning
	oriented performance
	focus on higher learning objectives promote
	flexibility in evaluation
Catering to learner diversity	Plan extensively for differentiated instruction
Participation in Continuous	Attend programmes to be updated about trends in
Professional development	education
	Carry out action research
Miscellaneous	Reduction of syllabus so as to focus on meaningful
	learning of required topics

- 7. The support of the institution is very important to make NEP 2020 a reality. Teachers' expectations from their institutions include
 - Well-equipped laboratories
 - Robust learning resources
 - Training programmes for teachers to be acquainted with emerging pedagogical strategies.
 - Shift of school ethos from marks oriented to learning oriented ethos
 - Provisions for more experiential learning
 - Focus on NEP 2020 while planning the annual school plan
 - Teacher student ratio must be suitable
 - Create benchmarks aligned with NEP 2020 and have time to time evaluation

Discussion

The findings of the study are discussed against the background of NEP 2020.

1. Teachers' Preparedness for NEP 2020

The actual implementation of NEP 2020 will be prominently seen after the revision of the syllabi which will be based on the National Curriculum Framework. However most teachers have already begun updating themselves and have read the NEP 2020 document, attended seminars and thus they are keeping themselves updated about the Policy. This is a positive sign as it is the teachers who will be instrumental in the implementation of NEP 2020.

2. Moving away from Rote Learning

More than 50% of the respondents have pointed out that better equipped schools play an important role in moving away from rote learning. They have categorically emphasized the need to have more critical thinking during the learning process. This must be accompanied by appropriate modification in the examination pattern and inclusion of textbooks that promote shift from rote learning. These observations of teachers are echoed in an analysis of various researches done by Violet Harada² where she has concluded that meaningful learning results from use of critical questioning, promotion of interactivity, helping students to negotiate in the direction of learning, learning by doing and integration of problem solving.

3. Use of Experiential Learning

Less than 25% teachers feel that learner diversity is a challenge to experiential learning. Also only 17.6% teachers felt that they do not have adequate knowledge of the proper use of

experiential learning. The major challenges that teachers face in the use of experiential learning is the lack of adequate time, large number of students in the classroom and the undue focus on marks due to the nature of the examination system. This means that teachers desire to include experiential learning and they also deem themselves skillful to use the same, yet factors like examination system pose a hurdle. The answer to this dilemma is contained in NEP 2020 itself, which categorically states that 'assessment will be more competency-based, promote learning and development for students, and test higher-order skills, such as analysis, critical thinking, and conceptual clarity.' If this is given priority, then it will be easier for teachers to focus on experiential learning.

4. Teachers' Continuous Professional Development

All teacher respondents have shown enthusiasm and readiness to undergo continuous professional development. This is a positive sign. While teachers prefer that such courses be conducted by their own institutions or through online means, the least preferred means for continuous professional development is courses conducted by government. This aspect needs to be further explored to find why teachers do not prefer courses conducted by the government agencies/ institutions.

5. Teachers' Efforts to Make Learning Engaging and Enjoyable

NEP 2020 recommends use of game based pedagogy, arts-integrated and sports-integrated education. Less than 50% of the respondents are using these approaches as of now. Only 20.6% teachers use field trips as learning experience. This implies that there need to be concerted efforts to encourage schools to integrate cross curricular pedagogical approaches as recommended by NEP 2020.

6. Teachers' Proposed Endeavours with Respect to NEP 2020

All the respondents have definite ideas regarding how they propose to actualize the recommendations of NEP 2020. It is necessary that schools support these efforts. Also such efforts can be given wider publicity on the school website so that other teachers may be enriched. NEP 2020 suggests that school clusters be formed to exchange resources. This may be also extrapolated to sharing ideas and best practices.

7. Teachers' Expectations form their Institutions

The results of the survey show that teachers are ready to implement recommendations of NEP but they expect the institutions to provide the required support. Infrastructure in form of

resources and laboratories and provisions to support experiential learning are the most prominent needs expressed by teachers. Proper coordination between the educational authorities and schools coupled with support from industry and society can go a long way in providing teachers with the basic amenities.

In conclusion it can be said that the research prominently echoes the fact that the respondents of the survey have a positive attitude towards NEP 2020 and they also have some good ideas to actualize the same. With proper support from schools and educational authorities, the vision of NEP 2020 can definitely be achieved.

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7. Design Thinking: Jump on the Bandwagon or Cogitate a While

Dr. Pooja Birwatkar

Assistant Professor, K. J. Somaiya College of Education, Somaiya Vidyavihar University, Mumbai.

Abstract

Design thinking has gained massive prominence in recent years and being heralded as most promising problem solving approach that not only enhances cognitive capacities and skills but also has empathy and collaborations as its crucial comer stones. With the NEP 2020 also signifying its importance, there is a need to chart out a map of how design thinking needs to be adopted as both a philosophy and a process in teaching learning environments. This paper attempts to examine the researches done in the area of design thinking to answer key research questions like - Does design thinking actually paint a promising future for our education systems? Should education systems be overly excited towards adopting design thinking? The researches revel that design thinking has tremendous potential to foster and enhance skill development, cognitive capacitates as well as collaborations. However there may be certain challenges stemming from curricular demands to time constraints and resource management amongst few others that need resolution.

Key words - Design thinking, problem solving, curriculum, education, teachers, students **Introduction**

The buzz words apparently revolutionizing our education system currently is design thinking. The recent focus of research has overtly brought to surface the scholarly link between teaching and design (Boling, 2010) though this connect is not very new (Schon, 1983) as the world of academia for past 30 years has been dialoguing on it. Tracing the roots of design thinking leads to its primary association predominantly with engineering and architecture (Renard ,2014) however the recent literature studies markedly place design thinking amongst other disciplines as well (Wrigley & Straker, 2017).

According to Cross (2001) designers in order to solve problems, use design thinking as an approach and view it as a cognitive skill. Design thinking is abductive in nature and leads to discarding traditional solutions for creative problem solving (Fischer, 2015; Donar, 2011)

Design Thinking Amalgamation with Education

A crucial review study was done by Lor (2017) on applicability of design thinking in education. This study concluded that design thinking can understood in terms of (1) design thinking in curriculum design, (2) design thinking as a teaching-learning approach, (3) teacher training & support for design thinking. Rauth et al. (2010) revealed that different competencies like prototyping skills, emotional skills, capability of adopting perspectives, empathy and a certain mind-set. In design the issues dealt with are real world and problems dealt with are open ended and their solutions are creatively generated with bridging both theory and practice (Hoadley & Cox, 2009). Design thinking enables students to become better team players (Çeviker-Çinar et al., 2017) and supports the implementation of 21st-Century Learning as per a study done by Retna.K (2015).

The researches done in this area have now shifted towards understating its growing role in education as well (Panke, S,2019). Needless to say this idea also percolates through our education systems. Education as a dynamic field is constantly subjected to challenges and design offers ample scope for deliberation on problem solutions (Jonassen, 2000).

Teachers and Designers: The Connect

Norton & Hathaway (2015) have credited the teacher's role to be similar to that of a designer. Teachers as designers surfaced in the theory of technological pedagogical content knowledge as given by Mishra and Koehler (2006). Their theory brought into perspective how educators are constantly involved in designing learning experiences using different tools and pressed on how teachers therefore are to be considered as designers of classroom transactions, engagements, learning experiences and knowledge. Koehler and Mishra (2005) note that teachers must have learning experiences that place them overtly in the role of designer, and be dynamic, creative designers (Kirschner, 2015). As per Carlgren (1999) teachers are now to be make shifts from traditional domains of implementing what was already existing and be inventors, constructors and designers of the practice of schooling.

While the new Educational Policy steadily enters our education systems and demands a complete overhaul, teachers are faced more than ever with creating innovative pedagogical

practices and processes. Deciphering the overall vision of NEP puts on forefront the need to integrate paradigm of design thinking into the educational system. This would imply eroding of the culture of rote learning, mass uniform evaluation and skill devoid education and pave way for critical thinking, and experimental learning.

Some pertinent question that surface in this regard are

- Does our education system acknowledge/credit teachers and learners to be designers of the learning process?
- Do teachers view themselves as designers?
- Are the teacher and learners in education system silent designers or unaware designers?

This paper attempts to examine the researches done in the area of design thinking to answer two key research questions

- R 1: Does design thinking actually paint a promising future for our education systems?
- R 2: Should education systems be overly excited towards adopting design thinking

In order to answer these questions several researches were studied in context of situating them in perspective of design thinking exclusively for education. Given below are some focal areas and issues as addressed by the researches.

R 1: Does design thinking actually paint a promising future for our education systems?

Enriched Learning

A report by Ferguson et al (2019) highlighted that design thinking enabled environments fostered playful learning. As per Watson (2015) students responded to design thinking as joyful experiences with creative expression and playful. Several researches proved that design thinking in education led to innovation, problem solving, creativity and collaboration (Kwek, 2011; Scheer, et al 2011). Introspecting design thinking, as a Constructivist learning strategy researches done concluded that there was motivation amongst students for openness to ideas, creativity as well as exploration and problem solving (Scheer & Plattner ,2011; Bruton ,2010; Carrol ,2014) Retna (2016) implied that teachers consider perceive that skills such as creativity, problem solving, communication and team work to have enhanced due to design thinking as well as empower students to develop empathy for others within and beyond the community.

Affective Domain

Acceptance: Non Judgemental attitudes, acceptance and comfort with people with different backgrounds and opinions and openness are all elements of empathy as key to the user-focus of design thinking (Carlgren et al., 2016). A shift in focus towards people, interactions with them and their activity were shown by students in a study by Aflatoony et al., (2018).

Ambiguity/ Uncertainty and Resilience: Design thinking a process involves trail and error approach towards solution and there are chances of failures which are viewed as aids to learning and celebrated, introspected with openness and used as means for furthering more creative successes in future (von Thienen, Meinel, & Corazza, 2017).

Creative Confidence: According to study done by Munyai (2016), when non designers engage in design thinking they gain creative confidence, and equip themselves with the ability to take responsible actions in wake challenges. Bowler (2014) highlights that design engagements and thinking like designers builds creative confidence. As designs lead to widening the scope of imagination without much of constraints, creative confidence nurtures and this as per Carroll et al (2010) is a crucial aspect of learning. Renard (2014) advocated design thinking to be adaptable and flexible enabling student's capacity developments.

R 2: Should education systems be overly excited towards adopting design thinking?

According to Kimbell (2011), design thinking is under theorized and understudied. It is ambiguous and may lead to learners experiencing confusion and frustration (Glen et al. ,2015). Diverse group of students with low threshold for risk taking may not find design thinking appealing enough. In such cases the facilitator has to strategically model design thinking as per the learner. In overcrowded Indian classrooms with fixated curriculum, time table rigidities and time bound examinations, these individual design strategizing practices may be difficult to adopt. While leaners presently are expected to deal with 21st century problems however they are not engaging much in problem solving endeavours. Only 16 percent of teachers reported they were giving problem based projects to their students (Project Tomorrow, 2009). Researches have shown that teacher experience in design thinking area is another major issue.

The nature of design thinking dictates it to qualify less as standalone subject in comparison to being interspersed with different discipline areas and owing to its interdisciplinary/ multidisciplinary outlook it must well be integrated in academic content (Carroll et al. 2010). There is pressing need for knowledge and experience encompassing a

number of disciplines in order to explore design thinking to the fullest. This also translates into demands put on students which may at times be not in sync with their educational experiences and cognition capacity. With too many cognitive demands put on students to think from unconventional perspectives yet empathize at the same time, design thinking may actually not seek its purpose fully if the learners are not prepared or motivated enough.

Design engagements require tremendous motivation for both learners and facilitators as they require long deliberations to generate novel and elegant solutions. According to Harden & Moore (2109) there may be scope of misunderstandings when teachers fail to meet the learning related expectation of the students. The constant question of how would a learner gain through the design engagements. Will learning be have measurable outcomes? The context driven nature of learning would require remodelling not only the learning scenarios but also moulding the mind-sets. Such achievements are long term and slow to attain. The long term focus of design thinking is on constructivism and experiential learning which require competencies and skill development. The ideation phases are generally long and require sufficient time to critically evaluate ideas. In the rigidities of conformity to the curriculum and time paucity these phases may be hurriedly done or neglected. This may lead to shallow ideas being pursued with comprises on creativity along with frustrations, anxiety and inability to cope with uncertainty and failures. Kwek (2011) and Bruton (2010) have pressed the demand for design implementation training to be given to teachers.

Indian education systems largely have retained the assessment pattern followed over the years. With the advent of design thinking, these patterns will pose challenges as the skills involved are difficult to assess and the mind sets promoted are long term and not singularly to be evaluated. Creativity, empathy, collaboration, creative confidence are all long term and cannot be really assumed about or evaluated (Hennessey & Mueller, 2020).

Conclusion: Weaving a Thread across Researches

While design thinking looks all positive and is in fact the need of the hour, yet there is no denying that it comes with its own set of challenges stemming from both teachers and students. On one hand creativity lacks, confusion, frustrations, ambiguity, dearth of novel ideas and collaborations may prove to be hurdles for students. On the other hand teachers may face challenges in terms of curriculum inflexibility, time constraints, assessments, resource and space crunch along with insufficient training and motivations. There appears to a be a need to divulge

more in-depth regarding the strategies for application and an understating of the experiences of teachers and student's as they engage in design cycle. The design models and theories validating the efficacy of design thinking need to be examined in multiple setting, levels and from multiple perspectives. Design based curriculums need to be evolved and examined. Corollary to this is the focus on realizing the criticality of transforming the teachers mind sets towards acceptance of design thinking based pedagogies while suitably addressing their training needs. There is no denying that the immediate future will present before scenarios of extensive usage of design learning and hence the preparation for the same has to rapidly gear up.

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8. Academic Bank of Credits for Nurturing Holistic Multidisciplinary Education

Dr. Sheetal Shailesh Chaudhari

Associate Professor, Pushpanjali College of Education, Vasai.

Abstract

Autonomy in India's higher education should not remain restricted to the limited academic freedom academic administrators and teachers enjoy. It has to reach the students in the form of flexibility of courses, adequate time to develop skills and opportunity to engage in the activities of choice. Intra and inter institutional mobility to create integrated campuses can only be achieved by accumulation and transfer of credits earned by the students. Academic bank of Credits is a digital platform for collection, validation and transfer of credits.

Key Words - Academic Bank of Credits, multidisciplinary education

Introduction

Indian education system is on the verge of massive revamp. Implementation of National Education Policy 2020 is in full force. Right from fundamental structural modifications to the revision of various academic and assessment related aspects have been minutely examined and proposed.

UGC has always played a key role in evaluating teaching learning practices as well as bringing innovation in Higher Education. Introduction of various schemes from time to time has helped in quality assurance. Continuing the chain of quality initiatives to build transformative educational set ups UGC has introduced Academic Bank of Credits (ABC). All higher education institutes are expected to register for ABC.

Academic Bank of Credits

Academic Bank of Credits is a vital part of National Education Policy 2020. And it has significant place in the changing scenario. The objective to promote student centric education and implementation of multidisciplinary educational approach focuses on allowing the students to learn courses of their interest at their own pace. Academic Bank of Credits provides a platform for educators to manage and check the credits earned by students at multiple entry and exit points.

Academic Bank of Credits is a digital storehouse. It is developed by the National e-governance division of the Ministry of Electronics and Information Technology under DigiLocker framework. It contains information of the credits earned by students throughout their educational journey.

Academic Bank of Credits will be Responsible for

- Opening, validating and closing of academic accounts of students
- Carrying out tasks such as credit accumulation, credit validation and credit transfer/redemption

Academic Bank of Credits Scheme will be Eligible for

- All kinds of courses –certificate courses, diploma courses, graduation courses, postgraduation courses, Ph. D courses etc. which are recognized by UGC.
- The students can opt for offline, online and distance mode courses offered by government and institutes.
- SWAYAM, NPTEL, V-Lab and any such other schemes offering courses.

Features of Academic Bank of Credits

The validity of the credits will be seven years. So student can redeem these credits for admission to another university or rejoin the course to continue his learning within those seven years. The validity may vary if otherwise specified by a particular course. After a period of validity the credits will expire.

Academic Bank of Credits is likely to play very important role in increasing student autonomy. It will enable students to have greater and smooth academic mobility across the higher education institutions. Students will have more freedom in choosing their courses, it will enable them to exit the course at preliminary levels and yet earn a certificate or a diploma. Students can redeem their credits in future and rejoin the course in the same institution or any other institute to continue their education at their will. The institutes cannot keep students against their will.

Academic Bank of Credits will not accept any course credit document provided by the student. The institution where student is enrolled has complete authority and will be responsible for regular deposition of credits. Thus integrity of the credits is ensured. This will maintain the authenticity and confidentiality. Easy credit transfer and faster credit recognition are the most important features of ABC.

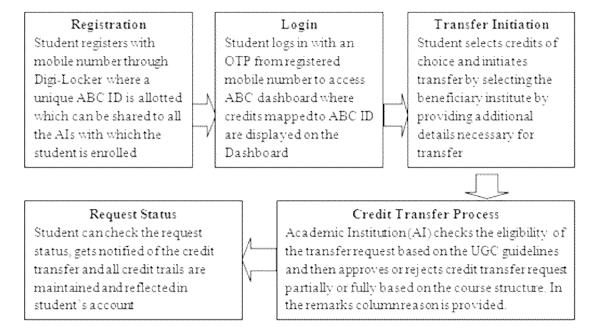
It is also perceived to help students by reducing language barriers and ability to pick best places and teachers for studies.

Responsibility of Academic Institutions (AIs)

Higher education institutes are expected to register on ABC (www.abc.gov.in). This will be closely monitored by UGC to enhance the reach of ABC programme. HEIs have a significant role to play to create awareness among the students and help them to open their ABC accounts. Institutional website will bear hyperlink to ABC URL on their home page. Nodal officers will be deputed for carrying out the responsibilities related to ABC.

Features available for the students:

Students will register on the ABC by logging in at www.abc.digilocker.gov.in for a unique ID. This same ID will be used for any course. So students will get to view total accumulated credits under one window which will make it convenient to redeem the same as per their requirements. Students will be able to view and monitor status and path of credits transfer. Workflow-



Thus the concept of Academic Bank of Credits will boost the efficiency of faculty in monitoring the student learning and also aid students in embracing the multidisciplinary educational approach seamlessly. It is going to be a big game-changer in transforming Indian education system- An access to education at anytime, anywhere and at any level.

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9. National Educational Policy 2020 and the forward Looking Vision for Teacher Education

Dr. Deepa Anil Patil

N. T. V. S. College of Education, Nandurbar. (Maharashtra)

Abstract

Education is important for the development of every field. Education is a fundamental aspect in the development of a country. If the youth of a society is educated, a future is born. Teacher provides the education that improves quality of life. Teachers increase productivity and creativity of students, Teachers play the key role in whole education. So, the role of teacher education and its importance cannot be ignored in today's scenario. The National Education Policy 2020 comes after a gap of 34 years and has recommended many changes in teacher education. Radical changes are noticed in the National Educational Policy formulated by Dr K. Kasturirangan and his team. The structure of school education in particular has changed dramatically. In the present article, the author discusses different types of expectations regarding teacher education, teacher education curriculum, challenges in the implementation of the teacher education curriculum.

Keywords: National Education Policy 2020, Teacher Education, multi-disciplinary institution, multilingualism, NCTE, NCERT, vocational education, special education

Introduction

The highlight of the curriculum under the National Education Policy 2020 is a four-year integrated B.Ed. course instead of the current two-year degree course. Currently students are required to take a graduate degree for B.Ed. admission. However, according to the National Education Policy, admission will have to be taken after class XII for B.Ed degree. In this course, in four years, the student will study various subjects in depth. Also, various practical activities will have to be included in the syllabus to imbibe various skills required for the teacher. Level wise and subject wise syllabus will be designed for four year integrated pedagogy degree. The B.Ed degree will also include vocational education and special education. An integrated pedagogical curriculum will be developed with a view to impart quality education for the future generation as a whole, by developing subject matter experts and skilled teachers.

Expectations in the context of pedagogy of National Educational Policy 2020

Considering that pedagogy is an important discipline in the entire field of education, it is noticed that various expectations have been set in NEP 2020. Although teaching is an art, teaching is morally and intellectually challenging, so the curriculum should be of good quality in terms of thorough preparation of the new teacher. Teaching needs to be ethical. Considering that the future generation of the nation is nurtured in the classroom, the teacher must have ethics along with subject knowledge. The student learns from imitation. It also requires conscious effort to be valued by future generations. In today's fast-paced world, as well as the changing circumstances in the family, it has become necessary to inculcate values in students through the dominance of mass media tools.

India has a large youth force, and it is the responsibility of teachers to turn this youth around. That is why the teacher must have ethics in his teaching skills. Ethical education is the only way for students to develop emotionally. Students will acquire life skills through these ethics. With all this in mind, expectations are expressed from the teacher in NEP 2020.

Teaching is intellectually challenging. Because the student who comes today realizes that he has all the comforts. Practically every student uses mass media tools. He also knows how to acquire knowledge from these mass media tools. This poses a challenge for the teacher to give the student something new. Instead of reducing the content, it is important to develop innovative 21st century skills such as holistic development and exploratory thinking, creativity, communication, collaboration, multilingualism, policy principles, social commitment and numerical literacy. Curriculum and pedagogy will need to be geared towards promoting skill based learning. The student teacher will have to imbibe all these aspects. The NEP 2020 suggests four stages viz. Foundational stage, Preparatory stage, Middle School and Secondary stage. The curriculum will have to be developed to prepare teachers for all these above mentioned levels as learners in each level will have their own unique capacities.

According to NEP 2020, radical changes will have to be made in the degree curriculum of pedagogy. The curriculum will have to be prepared to promote various skills such as knowledge of linguistics, aesthetics and art, communication, moral literacy.

Education Training in Multidisciplinary Institutions

Another radical change in the new educational policy is that B.Ed colleges will now be attached to senior colleges. This means that till now the colleges of education were functioning

independently, but as per NEP 2020, the colleges of education will now be attached to the senior colleges to impart in-depth knowledge and demonstration of the entire subject to the students. This will give the students a degree such as B.A. B.Ed. or B.Sc. B.Ed.

Challenges faced by the Colleges of Education

Acceptance of new Changes

Change is not always wanted by the general public. Accepting any change easily is a big challenge. The B.Ed. course was a one-year course until 2015. Post 2015 the two-year B.Ed course and as per recommendations of NEP 2020 the four-year integrated B.Ed. course comes to the fore. All these changes will need to be accepted so that implementation is effective.

Adjustments in Multidisciplinary Institutions

By 2030, all teacher training colleges will be linked to multidisciplinary institutions. Presently there are more non-aided colleges than aided teacher training colleges. Twinning of grant- in -aid multidisciplinary institutions and non grant- in- aid teacher training colleges may pose a major challenge.

Quality Courses

The National Education Policy includes pedagogy degree courses from pre-school to class XII. Currently, the B.Ed. curriculum consists of two levels of study, secondary and higher secondary. Bringing the pre-school and primary curriculum into the B.Ed programme may also pose a challenge as uptil now there were separate training courses for the same. There is no doubt that NCERT and NCTE will create the curriculum perfectly. However, it may take a long time for the teachers and professors to implement this course. There is going to be a big change in teaching methods, different skills, educational materials and pedagogy as a whole. Hence teacher education programmes will truly have to gear up to adjust to these changes.

Coordination between Schools and Multidisciplinary Institutions

According to NEP 2020, there will be a big change in the degree course of pedagogy. This change may be understood by the faculty of Colleges of Education, but it may be challenging for multidisciplinary institutions to understand and implement the pedagogy degree course. It may be difficult for multidisciplinary institutions to coordinate school and teacher education. Another likely challenge is the coordination of the multidisciplinary institutions with Anganwadi, Kindergarten, Primary, Secondary and Higher Secondary schools as the minimum degree qualification for teaching at any level will be a 4-year integrated B.Ed. degree that

teaches a range of knowledge content and pedagogy and includes strong practicum training in the form of student-teaching at local schools.

Additional Staff

The independent existence of Teacher Education Institutes colleges in the integrated four-year B.Ed. curriculum is coming to an end. It is planned to link all these colleges to multidisciplinary institutions. If this happens, librarians, principals and non-teaching staff may be redundant. Adjusting all these employees will also be a challenge. Or if an independent college of education is set up without connecting multi-disciplinary institutions, the number of professors and all staff will have to be increased. Adding to the infrastructure such as laboratories for B.Sc. B.Ed programme may also be a key challenge in implementing a four-year integrated curriculum.

The Tendency of the Students

Many students turn to Science after class X, and then as per their point of view or interest they tend to pursue medical, engineering or other vocational education. A new option offered to these students in the new education policy is a programme like B.Sc B.Ed. Given the growing trend of students towards other vocational education, the question of the number of students opting for B.Sc B.Ed. admissions may arise here.

To conclude, one may say that there are many questions that crowd one's mind regarding how the Four Year Integrated B.Ed Programme will really be put into action. Detailed planning must be put into action so as to facilitate this proposed shift in Teacher Education.

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10. Teacher Education Institutions as Hubs for Innovation

Ms. Angelina Nunes

Associate Professor, Pushpanjali College of Education, Vasai.

Abstract

Innovative practices help an educational ecosystem to grow. These could be practices in teaching-learning, evaluation, administration and management. Innovations in the teaching learning process helps students learn in an engaging and enjoyable way. National Education Policy 2020 emphasizes the need for research and innovation in education. This paper examines how an ethos for innovation has been continually nurtured at Pushpanjali College of Education, Vasai, Maharashtra. The paper is an attempt to identify elements that support an innovative educational landscape.

Key Words - Innovation, Autonomy, Growth Mindset

Introduction

A century ago, John Dewey quoted 'If we teach students of today like we taught yesterday then we rob them of their tomorrow'. The statement holds true even today. In a world where change is rapid and exponential, we need students who are critical thinkers, ready to take calculated risks and plunge into innovation. The National Education Policy 2020 has multiple references to innovation in education. One of the fundamental principles of the Policy recommends "a 'light but tight' regulatory framework to ensure integrity, transparency, and resource efficiency of the educational system through audit and public disclosure while encouraging innovation and out-of-the-box ideas through autonomy, good governance, and empowerment." Schools and institutions of Higher Education must promote innovations in learning. Departments of Education and Teacher Education Institutions, which play a crucial role in pre service and in service teacher education, should be centres where innovations are encouraged and new ideas are incubated. Pushpanjali College of Education, Vasai Maharashtra has always encouraged faculty and students to try new techniques in teaching- learning and evaluation. This paper showcases the attempts made in the past two years i.e from 2020-22 and also tries to identify what contributes to an educational landscape that nurtures innovation.

Innovative Practices Tried out in 2020-22

- i. In 2020, education saw a shift from offline to online mode due to the Covid19 pandemic and the lockdown. During this period, the college conducted many training sessions for student-teachers to help them acquire skills in online teaching. One of the digital platforms introduced was Thinglink which is an app that in creating interactive images and videos by adding tags. Tags can link to websites, social media pages, videos, maps, images, and audio. Student-teacher Ms Alisha Andrades created resources for Science using Thinglink and led the students into a constructivist learning environment. Her efforts were recognized when she won the first place for her learning resources at an inter institutional competition. The resource can be accessed at https://www.thinglink.com/scene/1429567961575718914.
- ii. In 2022, a team of three students Ms Jessica DMello, Ms Sophia Samuel and Sr Riya Baby showcased an innovative practice to teach Science through Blended Learning approach where they used Story Quest. Story Quest was where a story was used as base to learn. The story had activities embedded into it and learners had to complete the activities to go ahead with the story. The innovative idea won the team the first place at a programme organised by Homi Bhabha Centre for Science Education. The team's efforts are showcased at https://www.youtube.com/watch?v=LT5pjnIXDCI
- In September 2020, Mahatma Gandhi National Council of Rural Education and Dept of Education, University of Mumbai conducted an orientation for teacher-educators on VENTEL (Vocational Education Nai Talim and Experiential Learning). Student-teachers delivered lessons using Nai Talim approach. The students of the college tried innovative practices in VENTEL. In April 2021, student-teacher Kiran Salve showcased his efforts in sustainable waste management and won the first place at an inter-institutional programme. These were innovative ideas tried at community level to help in reducing and managing household waste. In October 2021, a team of four students showcased their efforts in VENTEL. (Link https:// www.youtube.com/watch?v=Eas4ba2k9F0&t=61s)
- iv. The above are just three examples of how students have tried innovative ideas and refined the same over time. The further discussion attempts to identify how the college supports and nurtures innovation.

Identification of Areas Needing Innovation

Innovation is often the product of a felt need. One may sense a need or may sense that a particular task can be done in a more efficient way. Reflection of the same helps to identify where change is necessary. This is generally fostered through brain storming with students. Students' experiences, especially during internship, are very useful to find areas that require change.

Planning for Change

Once the area for change is identified then one must plan for change. This is done keeping in mind the ultimate goal to be achieved and resources available at hand. Faculty and students work together to plan. Plans are often tried out on a smaller scale and refined before the final try out.

Autonomy to students to engage in innovation

Innovation depends on autonomy. A non-threatening atmosphere, freedom to experiment, risk taking attitude, right amount of mentoring and reflection are factors that support innovation. Feedback is also very important. Students in the college are encouraged to participate in inter institutional programmes which invite innovative practices to be showcased. The three Cs of creative thinking, collaboration and creativity form the pillars of such efforts. Students are encouraged to persistently ask curious questions to develop solutions for a better future. All efforts are duly rewarded by felicitating students in front of their peers. The college blogs also showcase their efforts and achievements. This reinforces a growth mind set which fuels further innovations.

Role of Growth Mindset in Innovation

The college continually supports innovation by students and in this respect nurturing a growth mindset has been found to be effective. The idea of growth mind set was proposed by psychologist Carol Dweck. Dweck has described the growth mindset theory as a response to the self-esteem movement, which held that lavishing students with praise builds confidence that leads to improved achievement. One of her studies showed that praising students' efforts rather than their intelligence made them more likely to pursue more difficult challenges. Some of the strategies to create a growth mindset that contributes to an innovation supportive environment are

I. Valuing the Process over the Result

The process of innovation is more important than the result. The college encourages students to enjoy the process of innovation. If there is undue focus on the result then it may cause performance anxiety.

II. View Challenges as Opportunities

During internship, student teachers may face challenges. They are encouraged to view these as opportunities to try something new and this almost always results in innovative ideas.

III. Celebrate Growth

Every step taken forward is a moment to be celebrated. So whether an innovative idea meets the goal or not even of there is incremental improvement then it is an time to celebrate.

IV. Do not be Afraid to Experiment

No idea is considered insignificant. Every idea deserves to be tried out. Whether one succeeds or fails, there is always something to be learned. This is the philosophy the college encourages in case of innovative ideas.

Besides encouraging innovation the college also provides regular inputs in the form of workshops and interaction with experts. Student-teachers participate in training sessions organised by bodies such as Central Institute of Educational Technology (CIET). Need based Value Added Courses are organised by the college. Students then leverage the knowledge and skills got from such sessions and design innovative solutions to challenges.

Conclusion

NEP 2020 reiterates the need for schools to be centres of innovation. Teacher Education Institutes should work towards instilling zeal in student teachers so that they nurture a growth mindset that promotes innovations. Teacher Education Institutions can also be the hub for neighbouring schools to help them try out new ideas in education. Addressing learner diversity and promoting inclusion are areas where innovation is needed. If teacher- educators, student teachers and inservice teachers work in collaboration surely they will be able to find novel solutions to challenges in education.

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11. A SWOT Analysis on NEP 2020's Vision of Ensuring Justice and Inclusion in Education

Asst. Prof. Pooja Tiwari Asst. Prof Kinkini Dutta

Oriental College of Education, Sanpada.

Abstract

"Justice is truth in Action" -Benjamin Disraeli

Education empowers every child to think freely and have their right to understand the problems in society and respond against various kinds of social discrimination. It helps a child to learn and realise full potential, if provided equal opportunities to take part in schools/colleges, braced with resources required as per her requirement and taught in a manner suitable to her needs. The goal of equity and inclusion is core of the new NEP 2020 because it emphasises that every citizen has the opportunity to dream, flourish and contribute to the country. This New Education policy is designed to evade segregation and isolation of cultural and linguistic minorities, gender and also those with disabilities, through restructuring the whole educational system. To enforce the aforesaid points, a strong foundation needs to be built. Hence an approach to SWOT analysis is being made in this paper. This policy ensures that no one will be forced to study a particular stream that's why emphasised on multidisciplinary approach not even any particular language because Government wants to make education accessible for all. The SWOT analysis of NEP 2020 with reference to inclusion and fairness gives an insight about the strength, gaps and loopholes. But overall, this policy will be good for the development of the education system of the nation.

Keywords- Empowerment, fairness, equity, disabilities, inclusion.

Introduction

Education is the fundamental element of every society to achieve social justice and make it progressive. It is the single best investment countries can make to build prosperous, healthy and equitable societies, and through this only a country can grow and achieve its objectives.

This Policy reaffirms that bridging the social category gaps in access, participation, and learning outcomes in school education will continue to be one of the major goals of all education

sector development programmes. Article 26 of the 1948 Universal Declaration of Human Rights states that everyone has the right to education. According to United for Human Rights, Inclusion means education for all by providing opportunities to marginalised section without any discrimination or segregation. The global education development plan reflected in SDG Goal 4 is to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by 2030, which was adopted by India in 2015. Under which India has altered its National Education Policy.

"According to the Government, the NEP 2020 is formulated after having considered over 2 lakh suggestions from different levels of local self-bodies, 2.5 lakh gram panchayats, 6,600 blocks, 6,000 ULBs and 676 districts with the aim of holistic productivity and contributing citizens for building an equitable, inclusive, and plural society with an increased Gross Enrolment Ratio (GER) of 50% by 2035." **Dr. Anuja, 2020**

The main aim of NEP 2020 is based on the fundamental principle of social justice, which stands for humanitarian values to create an equal and just society where every citizen can access the opportunity, resources and can contribute equally in the growth of the nation. The concept of inclusion is based on six E's and five R's and the essence of these is equality in diversity and harmony in heterogeneity of society.

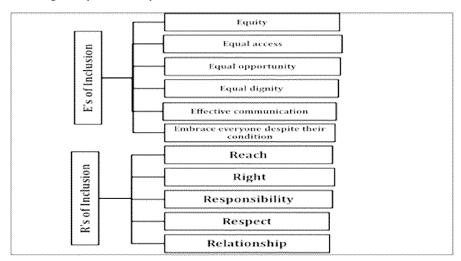


Fig 1- E's and R's of Inclusion according to NEP 2020

The UN Convention has formed articles 1 to article 41 for the safety of child's right. Among these articles article 23 said that a child has the right to special education and care, if he has any disability.

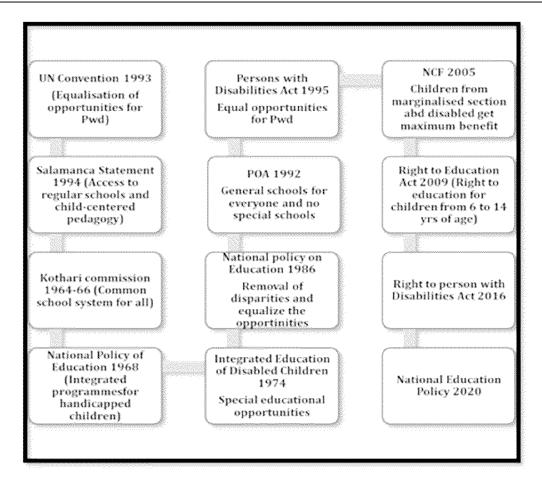


Fig 2- Timeline of the development of Inclusion

This policy anticipates to find specific social causes such as gender stereotyping and customs and beliefs that have spread the unsatisfactory treatment imposed out to girls, including their education. It is expected that issues particular to girl students and the other marginalised genders do not get weakened after having been co-opted within SEDGs (Socio-economically disadvantaged students).

A SWOT Analysis on the Roadmap of NEP 2020

Any policy framework has its own positives and the not so positive sides, that needs consultation and reworking before it becomes a framework. The NEP 2020 proposal has come after years of its last recommendation. The policy has given some very bright hopes for India's education sector to flourish in abundance in the near future. But there might be some areas that need reconsideration or modification for its better implementation.

Let's have a look at some lesser-known facts of the policy.

"There is no Struggle there's no Strength" - Oprah Winfrey"

Strengths

- 1. The policy definitely focuses on higher education, especially the SEDGs (Socio-economically disadvantaged students). The section that was somewhat at the backend, has now been given the priority that was much needed.
- For the betterment of SEDGs, special education zones are proposed to be built catering
 only to them, their needs, as per their requirements, resources and other aids will be
 made available to them.
- 3. Special focus on technology, for better participation and learning outcomes have also been suggested by the policy. The youth of today are the leaders of tomorrow, the future which is moulded and shaped by technology. A need, which is so intricately related with education, service, every sphere in life that has been proven by pre and post pandemic India. For which, children need to be trained at a very early age to get them prepared for the techno-savvy world outside.
- 4. It has also been directed that strict enforcement of 'no harassment', 'anti-discrimination' rules to be followed by institutions to lower and gradually erase any atrocities faced by SEDGs.
- 5. With the integrated courses, open entry-exit, variety of courses to choose from, technology driven education, more focus on vocational courses- the policy has made provision for an increasing rate of employability of higher education programs.

Weakness

We now know the basic structure upon which the foundation of the policy relies. But the road does have unanswered questions, which may be-

- 1. The policy suggests and focuses mostly on inclusion. However there needs to be clarity on certain details-
 - How to include inclusion?
 - What are the benchmarks that institutions need to maintain while enforcing the same? What specific qualifications are required for in-service teachers while accommodating the said children?

- 2. There has to be a ground level follow up, in a hierarchical manner to project a comparable study of status of SEDGs across all boards of HEI (higher education institution) on aspects like
 - Admission procedure
 - Structure
 - Fee allocation and on what basis.
 - 3. There is also a need for sensitization on gender-identity issues. Questions like
 - Does the policy ensure a place for the third gender in regular formal education?
 - Do they come under SEDGs?
 - What are their employability chances?
- 4. Is there any scholarship available for SEDGs? If yes, is it exclusively for them? Are other individual differences included?

Opportunities

"Opportunities don't happen, you create them." Chris Grosser

As discussed earlier, the policy has shown a bright light for the education sector in India to flourish. To mention a few-

- 1. Increase employability potential of higher education of education programmes.
- 2. More detailed outreach on higher education opportunities and scholarships
- 3. Potential growth in GER (gross enrolment ratio) for SEDGs
- 4. Open entry and exit for students in higher education courses
- 5. More varieties of courses to opt from
- 6. Integrated learning opportunities for students
- 7. Stress on vocational and experiential learning courses

Threats

The policy definitely has a lion-share of strengths and opportunities. However, one cannot miss out on possible threats like-

- 1. Since its proposal, what's the current scenario of NEP 2020 in 2022? What all implementations have actually been done?
- 2. Data and supportive arguments can be provided for that.
- 3. As NCF is under construction and on a stage of various consultative proceedings, what is the future of NEP 2020? Will it change with the change of government?

- 4. Some strong clarification required for this.
- 5. There has also been lots of ambiguity and haze in implementing NEP w.r.t funds allocation, scholarships, admission process, curriculum change. Definite guidelines and correct information in gradual manner to be / can be given instead of recommendations for its smooth running.
- 6. What will be the public-private partnership ratio in implementing the policy?
- 7. The above points need more clarity for strong foundation in accepting and running the policy.

Conclusion

"The policy also aims to recruit special educators in all school complexes to make sure that teaching is more inclusive and cognizant of the needs of children. Children with benchmark disabilities will be allowed to opt for home schooling and would be provided with skilled homeschooling educators so that they can still learn and acquire the best educational facilities. Further, teachers will be trained to identify learning disabilities in children early on and to help children with learning disabilities succeed in education and take care of their mental health. PARAKH will be formulated to create equitable systems of assessment for children with learning disabilities. Alternate models for schooling are proposed to advance this objective. However, the NEP appears to be over ambitious and utopian on this front. It fails to recognize the fact that not only most teachers are poorly trained for such special assignments, it also misses to take into account how most of India's schools are grossly understaffed. The policy also doesn't clarify or elucidate how it plans to create alternative home-schooling mechanisms that are accessible to individuals. For instance, in a recent evaluation undertaken by Delhi Child Rights Commission, as much as 60% of schools reported zero students with disabilities, and another 28 percent reported less than 1 percent. It highlights that people with disabilities are set to experience adverse socio-economic outcomes than persons without disabilities. The new policy fails to specify a roadmap of how it will make sure that education is made accessible to these individuals. It also doesn't specify what the change in the curriculum would be to make sure that children with learning disabilities don't feel excluded in the extremely competitive environments that Indian schools operate in today." Dr. Kumar, 2021.

This SWOT analysis is a miniature scenario of the NEP 2020 policy framework based on its ground reality reflections from various sources. Nonetheless, if the policy works on the loopholes, surely it will be a great pushover to our Indian education system altogether.

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12. NEP 2020: Paradigm Change in Education

Dr. Renuka Shewkani

Assistant Professor, Seva Sadan's College of Education, Ulhasnagar.

Abstract

The National Education Policy 2020 is the first education policy which focuses on many growing developmental areas of our country. The Policy proposes the revision and revamping of all aspects of the education structure including its regulation and governance, to create a new system aligned with the aspirational goals of 21st century.

The NEP 2020 is based on the principle of recognising, identifying and fostering the unique capabilities of each student, by sensitizing teachers as well as parents to promote each student's holistic development in both academic and non-academic spheres. Multidisciplinary approach and a holistic education across the sciences, social science, arts, humanities and sports for multidisciplinary world in order to ensure the unity and integrity of all knowledge.

This paper attempts to know the opinion of school teachers towards new changes included in NEP 2020.

Key words: - NEP 2020, school teachers, structure of education.

Introduction

The purpose of National Education Policy 2020 is to develop good human beings capable of rational thoughts and action, possessing compassion and empathy, courage, sympathy and scientific temper. It aims at producing engaged, productive and contributing citizens for plural society. The New Indian Education policy will provide high quality education to all and will make India a global knowledge super power.

The curricular framework for school education will therefore be guided by 5+3+3+4 design which covers ages 3-18. The Foundation Stage will consist of five years of flexible, multilevel, activity based learning. The Preparatory Stage will comprise three years of Education building on the play, discovery and activity based pedagogical and curricular style of the foundation stage. The Middle Stage will comprise three years of Education building on pedagogical and curricular style of the foundation stage. The Secondary Stage will comprise of four years of multidisciplinary study building on the subject oriented pedagogical and curricular style of the middle stage.

In the National Education Policy, high quality resources and education technological interventions to serve as aids to teachers such as DIKSHA (Digital Infrastructure For Knowledge Sharing) will be available for everyone. Curriculum content will be reduced in each subject to its core essentials, to make space for critical thinking. In all stages experiential learning will be adopted. Students will be given increased flexibility and choice of subjects in secondary schools.

By 2030, the minimum degree qualification for teaching will be a 4 year integrated B.Ed degree. The establishment of school complexes or cluster and the sharing of resources across complexes will have a number of other benefits and support for children.

Every state will be encouraged to strengthen existing or establish "Bal Bhavans" where children of all ages can visit once a week. For the purpose of developing holistic individuals, it is essential that an identified set of skills and values will be incorporated at each stage of learning from preschool to higher education. Schools will be encouraged to hire local eminent persons or experts as 'master instructors' in various subjects to benefit students and help preserve and promote local knowledge and profession. All students will participate in a 10 day bagless period sometime during grades 6 to 8 where they intern with local vocational experts such as carpenters, gardeners, potters, artists etc. vocational courses through on line mode will also be available.

Teachers will play a very significant role in actualizing the Policy. Hence it is necessary to find their opinion regarding the same. This study aims at finding how teachers view NEP 2020.

Objective of Study

1. To study opinion of school teachers towards NEP 2020.

Methodology of the Study

Method

To bring the National Education Policy into practice, it is important to know opinion of teachers' towards new education policy 2020. To collect information based on above variables Descriptive survey method was used to conduct the present investigation. Qualitative approach was used to get result.

Sample

The sample consists of 30 school teachers from Ulhasnagar to Thane region.

Tools Used for Data Collection

To collect primary data from teachers of school, checklist was prepared by researcher, tool is comprising of 16 items.

Data was collected using Google form from school teachers of Ulhasnagar to thane region.

Analysis of Data

Data collected through checklist was analyzed with the help of frequency & percentage. Qualitative approach was used.

The following Table Shows Positive Responses Given by School Teachers Regarding NEP 2020.

Sr.	Aspect of NEP 2020	Favourable Response	Percentage
No.		(yes)	
1	NEP 2020 policy	30	100
2	Mother tongue as medium of instruction	6	20
3	5+3+3+4 structure of Education	30	100
4	three exams in classes 2, 5 & 8	8	36
5	4year multi-disciplinary bachelor's degree	19	67
6	Reducing the curriculum load	17	53
7	M. Phil courses are discontinued	14	47
8	Fixed fees of both private and public	25	83
	universities		
9	Foreign universities can now set up campuses	20	66
10	Cluster of schools	29	96
11	Senior and retired faculty as mentors	30	100
12	Academic Bank of Credit for students	30	100
13	Flexibility and choice of subjects at	24	76
	secondary level		
14	Merit based structure for salary and	24	76
	Promotion		
15	'Bal Bhavans' for children	29	96
16	Best practices of private schools will be	29	96
	shared		

Findings

- 1. 100 percentage school teachers are satisfied with National Education Policy of 2020.
- 2. 20 percentage of school teachers are in favour of mother tongue as medium of instruction.

- 3. 100 percentage teachers favour the replacement of 10+2 with 5+3+3+4 structure of Education.
- 4. 36 percentage of School teachers are of the opinion that school exams should be held only in classes 2, 5 & 8.
- 5. 67 percentage of School teachers are in favour of 4 year integrated B.Ed. degree course.
- 6. 53 percentage of School teachers agreed that NEP will help in reducing curriculum load of school students.
- 7. 47 percentage of School teachers said that M.Phil courses should be discontinued
- 8. 83 percentage of School teachers show preference for same fee structure in private and public schools.
- 9. 66 percentage of School teachers are favorable to the fact that foreign universities can now set up campuses in India
- 10. 96 percentage of School teachers liked the idea of cluster of schools, where they can share ideas, content and other resources
- 11. 100 percentage of School teachers liked the recommendation that Senior and retired faculty can work as mentors.
- 12. 100 percentage of School teachers are in favour of Academic Bank of Credit of marks for students
- 13. 76 percentage of School teachers agree to having flexibility and choice of subjects at secondary level
- 14. 76 percentage of School teachers liked Merit based structure for salary and Promotion
- 15. 96 percentage of School teachers like policy of 'Bal Bhavans' for children
- 16. 96 percentage of School teachers are in favour of the fact that best practices of private school will be shared with other schools.

It is good to note that most teachers are aware of the recommendations of the NEP 2020 and are also inclined positively towards the same. When schools will share their novel ideas with others there will be improvement in quality of education. Curriculum will be taught through activity method. Lots of changes are expected in evaluation system so that evaluation is comprehensive and continuous. Promoting education in mother tongue is also a welcome move as it will lead to stress free learning.

The researcher puts forth some suggestions so that the implementation of NEP 2020 is done effectively.

- School clusters have a lot of potential to leverage the quality of education. There must
 be a good rapport among schools in the neighborhood to share their best practices.
 Human resources and other infrastructure also must be used optimally so that all
 schools can excel.
- 2. Good practices in teaching learning and evaluation must be given publicity on the school websites so that it inspires other institutions.
- 3. Teachers can be given incentives to try new techniques to have engaging activity based learning. Action research must be promoted in all schools.
- 4. Senior teachers can be given the responsibility to mentor new teachers and help them implement the recommendations of NEP 2020.
- 5. Digital platforms like DIKSHA already has rich resources in many languages to help teachers teach in an interactive manner. However many schools may lack the basic infrastructure like electricity, computers or wi- fi to access these resources. Funds may be released to have robust infrastructure.
- Schools may devise their annual plans to be in tune with the recommendations of NEP 2020. Regular evaluation of the implementation can be carried out. Success stories of institutions can be shared on government sites.
- 7. To conclude one may say that there is a lot of positive attitude among teachers to put NEP 2020 into practice. If they are supported with right mentoring and required resources then surely the vision of NEP 2020 can be achieved.

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13. Significance of Academic Self-Concept and Students' Preferred Learning Styles in the Light of NEP 2020

Dr. Cerena Aurin D'Cunha

Associate Professor, St. Teresa's Institute of Education S. V. Road, Santacruz (West), Mumbai.

Abstract

Education plays a vital role in ensuring the well-being and development of every individual. Knowledge and skills acquired through quality education play a major and vital role in formation of student's personal identity. The contemporary NEP 2020 aims at doing away with the age-old traditional practices of rote memorization and learning and bringing in an ethos of constructivist pedagogies. In the view of these factors, the researcher was interested in examining the academic self-concept and students' preferred learning styles to find out its implications on teaching-learning practices in light of NEP 2020. The results of the study reveal that a majority of secondary school students have an average level of Academic Self Concept and indicate preference for Kinaesthetic Learning Style. In the view of the obtained results the researcher has given suggestions to implement kinaesthetic learning styles to meet the goals of NEP 2020.

Key Words: Academic Self-Concept, Students' Preferred Learning Styles, NEP 2020.

In the era of contemporary technologies and globalisation, education is considered as the prime stage of growth and advancement. It plays a vital role in ensuring the well-being and development of every individual. Knowledge and skills acquired through quality education play a major and vital role in formation of student's personal identity. Teachers and students work together to achieve the goals of school and the teaching learning process.

The contemporary NEP 2020 aims at doing away with the age-old traditional practices of rote memorization and learning and bringing in an ethos of constructivist pedagogies looking beyond the arenas of textbook adhering education and curricular practices. It aims at objectifying an entire restructuring of the educational system to ensure transformational education which looks at a dynamic and sustainable future.

In order to ensure such educational practices and systems, it is imminent to focus on the requirements of students in current classrooms. In a classroom, it is essential for students to develop interest in learning. Interest is a powerful psychological state. It makes students feel excited, full of energy, focused and engaged in class. Research has revealed that when students pay more attention, they process material in a better way, comprehending and remembering it for a longer duration of time. There are various factors that influence students' interest in learning; students' attitude, teacher's effectiveness, self-concept, student preferences and motivation being a few.

One's self-concept is an individual's beliefs about oneself that includes elements such as academic performance, gender perceptions, sexuality, and ethnic identity. Largely, a person's self-concept personifies his schemas, experiences, past, present and future perceptions. Self-concept denotes the capacity of an individual to feel good about oneself and his/her abilities. Majority of children's developmental years are spent in school, and thus academic performance has a large impact on a child's self-concept.

Concept of Academic Self-Concept

Reynold (1988) defined academic self-concept as perceptions of individuals' capacity and competence level regarding his or her abilities within the academic settings. It can also be defined as the one's self-assessment concerning academic capabilities and skills (Trautwein, 2006). Academic self-concept is a chief term used in the educational field and psychology. It is a psychological conception frequently used to expound students' certainty and belief in their abilities concerning specific academic areas. It plays a very significant role in the attainment of holistic development of children in all walks of life. In a universal sense, academic self-concept can be defined as one's academic self-perceptions about general abilities in school.

The academic self-concept is also influenced by an individual's preferred learning style, which pertains to, an individual's preference regarding learning/ educational strategies used in a teaching-learning process.

Concept of Student Preferences of Learning Styles

Students' Learning preferences denote exactly how much a learner has a preference for certain educational strategies over others. There are four learning styles known as the popular VARK Learning Styles approach (visual, auditory, reading, and kinaesthetic). When learners are exposed to their preferred learning style, overall retention and comprehension increase. Visual

learners favour imageries, diagrams etc. Auditory learners acquire better by listening. Reading/writing learners learn better via written verbalization. Kinaesthetic learners learn by doing.

Once a favoured learning style pertaining to an individual is discovered, it may help to shed light on ones learning habits and thereby fostering incorporation of ideas and strategies to implement appropriate learning experiences.

Need of the Study

The self-concept of students is of prime importance in their lives. As the influence of school and achievements in school plays a dominant role in a child's life, academic self-concept largely becomes a determining factor of a child's overall wellbeing. Also, a students' preference regarding Learning Styles is influential in modulating learning experiences to best meet the intellectual needs of the students. Moreover, efforts have begun in the direction of implementing the NEP 2020; which aim at revamping the educational system to ensure a dynamic change in the teaching learning processes.

In the view of these factors, the researcher was interested in examining the academic self-concept of secondary school students and students' preferred learning styles to find out its implications on teaching-learning practices in light of NEP 2020.

Statement of Problem

To infer the implications of Academic Self-Concept and Student Preferences and formulating teaching-learning practices with reference to NEP 2020.

Objectives of the study

- 1. To assess the level of Academic Self-Concept of secondary school students.
- 2. To assess student's Preferred Learning Styles among the secondary school students.
- 3. To suggest strategies for formulating novel teaching-learning practices in the light of NEP on the basis of Academic Self-Concept and Student's Preferred Learning Styles.

Significance of the Study

The study focuses on the Academic Self-Concept and Student's Preferred Learning Styles. Of secondary school students and it will benefit the following stakeholders.

The study will help the secondary school students to be aware about their academic selfconcept and preferred learning style. It will help the teachers to know the difficulties faced by students and make decisions to choose an effective way of teaching their students and also implement new strategies to reach out to the weaker students.

The study will help the parents to be aware of their children's strengths and weaknesses; thereby making efforts to resolve their child's problems.

The Principal and School management will benefit from this research because the data collected on academic self-concept and student preferences of learning styles will highlight the level of students' self-concept and their ideas regarding preferred teaching-learning practices. This will enable the authorities to take active measures to ensure creative teaching-learning practices.

Methodology, Sample and Tools of the Study

This study was quantitative in nature and descriptive research design was selected. The students were selected using purposive sampling technique. The data was collected from students using an Academic Self-Concept Scale developed by Reynolds, 1988. The Academic Self-Concept scale is a Likert type scale with 40 test items. It measures students' perceptions of their ability for academic accomplishment. The data for students' preferences regarding the teaching-learning practices was collected using Perceptual Learning Style Preference Questionnaire by Reid (1987). This scale is a 15 questions Likert type scale. Both these scales were administered to 70 secondary school students from the SSC board English medium schools of Greater Mumbai. 61 forms were considered for the research and others were discarded due to incomplete data. The responses for each item were scored and the value ranged from 5 (strongly Agree) to 1 (strongly disagree) according to the positive and negative items on both scales.

Scope and Delimitations of the Study

The present study focuses on assessing separately the academic self-concept and student's preferred learning styles. The study is restricted to English medium secondary school students of Greater Mumbai. Students of the primary section and other medium schools were excluded from the study. The sample consisted of only SSC board school students and not any other boards namely ICSE, CBSE, IGCSE, and IB. The study was conducted only on students. Parents, teachers, Principals were excluded from the study.

Findings and Discussion of the Study

Objective 1: To assess the level of Academic Self-Concept of secondary school students.

The academic self-concept of the students was measured as a mean of total score on Academic Self-Concept Scale obtained by the individuals. The Academic Self-Concept scores were analysed and classified as high, average and low. The scores ranging (168 and above) show high Academic Self-Concept, between range (130-167) show average Academic Self-Concept while range (below 130) show low Academic Self-Concept.

Table 1. Mean, Standard Deviation, Academic Self-Concept of Secondary School Students and status

Variable	N	Mean	SD	Status
Academic Self -Concept	61	149.0492	19.3084	Average

It was seen from Table 1 that mean of secondary school students on Academic Self-Concept scale was 149.0492 (SD, 19.3084) which means that the level of Academic Self-Concept of secondary school students was average.

Table 2. Distribution of Students According to the Level of Academic Self-Concept (ASC)

Range of Scores	No. of students	Percentage	Status
168 and above	10	16.39%	High ASC
130-167	41	67.21%	Average ASC
Below 130	10	16.39%	Low ASC

It was seen from the Table 2 that 16.39 % students have high Academic Self-Concept and 67.21% students have average Academic Self-Concept and 16.39% students have low Academic Self-Concept.

Therefore, it can be concluded that most of the secondary school students (67.21%) have average Academic Self-Concept. This may be because students may not be having a strong conviction about their capacities and competence regarding their abilities in academic settings. Also they may not perceive themselves as highly capable to handle general educational/scholastic tasks.

Objective 2: To assess Student's Preferred Learning Styles among the secondary school students.

Analysis of the questionnaire was done on the basis of types of survey questions. The fifteen questions in the questionnaire were categorized into three types of learning styles viz

Visual Learning Style (Question numbers 1, 5, 9, 12 and 15), Auditory Learning Style (Question numbers 2, 4, &, 10 and 14) and Kinaesthetic Learning Style (Question numbers 3, 6, 8, 11 and 13).

The following tables give the means of the three categories of learning styles. Table 3 shows the means of obtained of questions pertaining to Visual Learning Style, Table 4 shows the means of obtained of questions pertaining to Auditory Learning Style and Table 5 shows the means of obtained of questions pertaining to Kinaesthetic Learning Style.

Table 3: Mean and SD of Visual Learning Style questions

Question No.	N	Mean	SD
1	61	2.0345	0.8997
5	61	2.1428	0.9705
9	61	1.8928	0.9940
12	61	2.4285	0.8789
15	61	2.9285	1.1198

Table 4: Mean and SD of Auditory Learning Style questions

Question No.	N	Mean	SD
2	61	2.1421	1.2934
4	61	2.0332	0.8451
7	61	1.8232	1.9354
10	61	2.4264	1.6733
14	61	1.9351	1.4356

Table 5: Mean and SD of Kinaesthetic Learning Style Questions

Question No.	N	Mean	SD
3	61	3.6785	0.9048
6	61	4.0957	0.7926
8	61	3.3214	0.8629
11	61	3.1428	0.9315
13	61	4.1428	0.8034

Based on the above findings, it is observed that the means obtained for Questions 3, 6, 8, 11 and 13 are 3.6785, 4.0957, 3.3214, 3.1428, and 4.1428. Thus it can be concluded that highest means were obtained on the questions pertaining to Kinaesthetic Learning style. This means that the students show greater preference to lively, activity oriented, practical and hands-on sessions. However the means obtained on Visual Learning Style and Auditory Learning Style as per tables 3 and 4 were comparatively lower than Kinaesthetic Style; which further indicates the preference of students to active teaching -learning environment.

Objective 3: To suggest strategies for formulating novel teaching-learning practices in the light of NEP on the basis of Academic Self-Concept and Student's Preferred Learning Styles.

The results of the study reveal that a majority of secondary school students (67.21%) have an average level of Academic Self-Concept and it also indicates Kinaesthetic Learning Style as the most preferred learning style by a majority of students. Taking these findings into consideration, following strategies are suggested to incorporate novel teaching-Learning methods to objectify the goals of NEP 2020.

- Organization of workshops and practical sessions to focus on hands-on learning to develop mastery of concepts.
- 2. Ensure a stress free classroom environment with creative and flexible activity schedules.
- 3. Incorporating Game Based Pedagogy to enhance motivation and interest in learning.
- 4. Ensure opportunities for all by incorporating diversified learning experiences.
- 5. Organize Counselling and Career guidance sessions to help students tackle difficulties and ensure goal based learning
- 6. Curriculum framers should focus on designing an activity based curriculum to ensure hands on skill development, thus improving the academic self-concept and adhering to the preferred Kinaesthetic Learning Style.
- 7. Instructors must be proactive in accepting the ethos, and the motto of the NEP 2020 and up skilling themselves with arduous Continuous Professional Development programs.
- 8. Execution of NEP will necessitate discarding the traditional practices and adopting Constructivist pedagogies which go beyond textbooks to achieve futuristic learning outcomes.

Conclusion

Thus, it could be concluded that a majority of students like to be actively involved in lessons and experience and learn thing by themselves. Ensuring Kinaesthetic learning strategies will ensure a high Academic Self-Concept of students and also meet the objectives of NEP 2020 of doing away with rote learning and memorization, thus ensuring a constructivist learning environment creating enriched classroom experiences.

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14. Virtual Learning: An Avenue for Digital Literacy

Dr. Cindrella D'Mello

Associate Professor, St. Teresa's Institute of Education, Santacruz West, Mumbai.

Abstract

The 21st century led to the dawn of the digital revolution all over the globe. All the fields have experienced progressive changes with the help of technology and the educational sector is no exception to it. Technology-aided teaching was in practice for the last decade however due to the sudden arrival of the pandemic technology proved to be a boon for continuing education in the form of 'Virtual Learning. The study was conducted to know the impact of virtual learning on the digital literacy of students. The data was collected from students in 9th grade studying in a school in Mumbai. The tool used for data collection was a rating scale. Most of the students showed an increase in the level of their digital literacy during the lockdown period and the prime reason for this is the 'virtual / online learning mode. The boys were found to have a higher level of digital literacy compared to girls.

Keywords: Virtual learning, digital literacy.

Introduction

The recent rise in epidemics and pandemics necessitates that we are ready with alternative modes of quality education whenever and wherever traditional and in-person modes of education are not possible. In this regard, the National Education Policy 2020 recognizes the importance of leveraging the advantages of technology while acknowledging its potential risks and dangers. It calls for carefully designed and appropriately scaled pilot studies to determine how the benefits of online/digital education can be reaped while addressing or mitigating the downsides. In the meantime, the existing digital platforms and ongoing ICT-based educational initiatives must be optimized and expanded to meet the current and future challenges in providing quality education for all.

Teachers require suitable training and development to be effective online educators. It cannot be assumed that a good teacher in a traditional classroom will automatically be a good teacher in an online classroom. Aside from changes required in pedagogy, online assessments also require a different approach. There are numerous challenges to conducting online examinations at scale, including limitations on the types of questions that can be asked in an

online environment, handling network and power disruptions, and preventing unethical practices. Certain types of courses/subjects, such as performing arts and science practicals have limitations in the online/digital education space, which can be overcome to a partial extent with innovative measures. Further, unless online education is blended with experiential and activity-based learning, it will tend to become a screen-based education with limited focus on the social, affective, and psychomotor dimensions of learning.

In recent times digital literacy is considered the fourth pillar of literacy along with reading, writing, and mathematics, which are foundations for an individual to be called literate. Digital literacy is defined as the individual's skills and ability to learn and work in a society where access to information and communication is increasing via digital technologies like gadgets, the internet, and social media. Digital platforms gained momentous due to the pandemic that led to a lockdown and social life affairs started from home with the help of technology. The extended lockdown period also led to the emergence of new digital technologies and over time teachers and students both adapted to it. This study focuses on how the new dimension of virtual learning had an impact on the digital literacy rate of secondary school students.

Operational Definitions

Virtual Learning

A virtual learning environment in educational technology is a web-based platform for the digital aspects of courses of study, usually within educational institutions.

Digital Literacy

Digital Literacy An individual's skill or ability to access and use information through digital technologies like internet platforms and digital devices like computers and mobile.

Aim of the Study

To study the impact of virtual learning on the digital literacy level of students in grade 9.

Objectives of the Study

- 1. To study the impact of virtual learning on the digital literacy level of the students of Grade 9.
- 2. To study the impact of virtual learning on the digital literacy level of students in Grade 9 based on gender.
- 3. To compare the impact of virtual learning on the digital literacy level of students of Grade 9 based on gender.

Methodology of the Study

For the present study, the researcher has used the 'Descriptive Survey' method to carry out the research.

Tools (Rating Scale)

The researcher constructed a 3-point rating scale for the present study. The tool consisted of 15 items. Each item had the options as Yes, No, and Maybe.

Sample

For the present study, the data was collected from 58 students of Grade 9 studying in Our Lady of Health, Sahar, Mumbai by the researcher and Ms. Sheetal Gavand.

Sampling Technique

The researcher has used the purposive sampling technique. The purposive sampling method is a method of generating a sample based solely on the researcher's discretion and interpretation of the target group, as well as the nature of the analysis. People who only meet the study criteria and end objectives are chosen in this sampling process, and the rest are excluded.

Analysis of Data

The researcher has used the 'Graphical Analysis' and 'Descriptive Analysis' techniques and has made use of Pie Charts and Joint Bar Graphs to represent the collected data and to describe the finding. After the data was collected, the responses were tabulated by assigning a value to each response. The score for each student was calculated.

Findings of the Study

- 1. 73.5% of the students learned to surf the internet efficiently during the lockdown period. 100% of boys have learned to surf the internet efficiently during lockdown whereas 50% of girls can do so.
- 2. 67.6% of students learned using Google Forms/ppt for online project submission. Both 68.75% of boys and girls are using google forms/ppt for their online project submission.
- 3. 85.3% of the pupils learned to upload files on Google Drive/forms. 87.50% of boys and 83.30% of girls got well versed with the technique of uploading files on Google drive/forms.
- 4. 70.6% of students learned to use various tech tools available online. 93.75% of boys and 50% of girls experienced a rise in their knowledge regarding various tech tools.

- 5. 94.1% of students have learned to use Google Meet and Zoom platforms. An almost equal number of 93.75% of boys and 94.44% of girls have learned to use Google Meet and Zoom platforms.
- 6. 79.4% of the students were able to retrieve notes from google classroom and also able to submit their work. 81.25% of boys and 77.77% of girls could use Google classroom for their online learning.
- 7. 73.5% of students have learned to use technology constructively due to virtual learning. 81.25% of boys and 66.67% of girls have learned to use technology constructively.
- 8. 64.7% of the pupils responsibly use several digital platforms. 75% of boys and 55.56% of girls responsibly use digital platforms.

Conclusion

The NEP 2020 emphasizes the advantages of technology and makes the youth ready for the future to face all kinds of challenges. India is a country with socio-economic dimensions and regional diversity and for proper implementation of policy, emphasis should be done on the reachability of online teaching and training to all for the betterment of society and knowledge enhancement.

Technology in education is a journey and not a destination and capacity will be needed to orchestrate the various ecosystem players to implement policy objectives. Since technology is rapidly evolving and needs specialists to deliver high-quality e-learning, a vibrant ecosystem has to be encouraged to create solutions that not only solve India's challenges of scale, diversity, and equity but also evolve in keeping with the rapid changes in technology, whose half-life reduces with each passing year.

In this modern era pupils are already aware of how to use social media and several online gaming platforms; however online mode of learning helped them to learn and use technology in a truly constructive manner that will enhance their level of being a digital citizen. This research is conducted to know the impact of virtual learning on the digital literacy of students during lockdown time. The results are quite satisfying to see that majority of the students from the sample population showed a progressive sign in their digital literacy level concerning their using technology for their studies and learning process.

All we can say is that the future is all about being digital, wireless, and virtual, and with the current scenario there is a high scope of virtual learning in the educational field. Thus, it is important not only to make educators but also the pupils well versed with the digital platform so that they show versatility in using technology for their studies and learning.

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15. Nurturing Digital Competencies among Teachers

Sr. Delicia S. Fernandes

Assistant Professor, Pushpanjali College of Education, Vasai.

Abstract

Teachers are the most precious asset in the educational world. The 21st century educator needs to be an all-rounder. Apart from the basic skills for teaching, the Gen-next teacher needs to be digitally competent. The teacher today is not just an instructor but also a constructor, facilitator and creator of e-content. A digitally sound teacher can create digitally sound students and global citizens. The National Education Policy (NEP) 2020, emphasizes the use of ICT in the field of education. The NEP aims at a high quality digital education system.

Key Words: Digital Competencies, NEP 2020, ICT, Educational Technology.

Introduction

"Highly effective teachers are worth their weight in diamonds because that's what they are. They sparkle, dazzle and amaze us with their artistry"- James L Casale.

Teachers are the most precious asset in the field of education that can revolutionize the entire education system. Today's educators are not just teachers but are expected to be all in all. Like the multiple hands of the Goddess Sarasvati, the 21st century educator ought to be a multitalented entity- a teacher, a mother, a guide, a guru, a manager, a scheduler, an artist, an entertainer, a fundraiser and the list is endless. Only when well equipped with these qualities, can a teacher in today's challenging era be truly effective in her profession or rather a vocation, as she navigates the academic journey along with her students through the turbulent waters of the educational oceans. Apart from all the skills and competencies for teachers spelt out by various commissions and policies, one of the essential competencies is Digital Competency.

Meaning

Digital Competency refers to the confident and efficient use of information technology for work leisure and communication.

Digital Technical Competency is a general terminology used to refer to the ability to use the ICT in a variety of fields.

Digital Competency for teachers can imply the effective and creative use of ICT in teaching learning process.

Need for digitally competent teachers

The gen-next educator ought to be digitally competent. Digital pedagogy is the convergence of technology and educational pedagogy. A digitally sound teacher can transform students into an effective workforce in the digital world of tomorrow. Today, we live and breathe in a digital era and only a digitally completed teacher can endure the stress and strain of the modern education system. Technologies like Artificial Intelligence and Cloud Computing are initiating drastic technological revolutions and the field of education can no longer be alienated or unaffected by this digital wave. Thus, teachers need to adapt themselves to this digital evolution and help their students to elevate their personal development trajectories and the digital footprint in the digital era. Teachers struggle at times to keep pace with this digital generation. Hence a digitally competent teacher can attain digital mastery to cater to the needs of the digital natives. The digital dynamic age of Information and Technology demands the digitally emigrant teachers to be not just skilled but competent enough to create and use these digital tools and platforms in her daily classroom teaching.

The inexhaustible resources especially in the field of education can revolutionize the entire educational scenario of a digital tomorrow. 'E' is the most essential keyword today in the digital world - email, e-book, e- library, e- learning etc. Today the role of a teacher is not just that of a mere instructor but that of a constructor, a facilitator and creator of a digital learning environment. Only a digitally competent teacher can make a huge difference in the teaching learning process and thereby enhance the teacher effectiveness of an ordinary classroom transforming it into an e-classroom in an e-world.

Significance in the light of NEP 2020

The NEP 2020 is a revolutionary policy that has given tremendous importance to educational technology. It emphasizes the use of digital technology in the field of education for building a digital India. The recent Covid-19 pandemic has given the momentum to this herculean task. ICT has heralded a paradigm shift in the educational world. NEP 2020, visualizes an Indian education system that will transform India into an equitable and a very vibrant society for the creation of high quality education to all.

NEP 2020, speaks about creating an autonomous body the NETF- National Educational Technology Forum to make available a platform for the unrestrained exchange of ideas on the use of ICT to enhance the teaching learning for assessment, for learning and administrative

purposes. Hence, teaching learning e-content needs to be developed. NEP also advocates technology based educational platforms such as DIKSHA and SWAYAM in order to enable e-content developers to create user friendly and quality content in order to make education available in remote inaccessible areas for online educational portals are also advocated by the new education policy.

NEP 2020 makes some recommendations key initiatives in order to promote digital learning. These can be a reality only if the teacher himself/herself is digitally competent. The guidelines provided by NEP need to be followed to help build digital competencies in teachers.

One of the recommendations is that 'an autonomous body, the National Educational Technology Forum (NETF), will be created to provide a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration, and so on, both for school and higher education.' A platform like this will be extremely beneficial as it will help to have a robust exchange of ideas. The Policy also recommends that agencies like NETF, CIET, NIOS, IGNOU etc. should conduct pilot studies to evaluate the benefits of online education.

The DIKSHA platform is already a vibrant platform where teachers can access many learning resources in form of Open Education Resources. Agencies like Central Institute of Educational Technology (CIET) regularly conduct training sessions for teachers to make them digitally competent. More awareness about such programs is necessary for teachers so that they can leverage the benefits of technology in teaching.

NEP suggests that 'there is a need to invest in creation of open, interoperable, evolvable, public digital infrastructure in the education sector that can be used by multiple platforms and point solutions, to solve for India's scale, diversity, complexity and device penetration.' If Private Public Partnership is encouraged in this respect then one can overcome many barriers such as connectivity issues or lack of devices and ensure that even teachers in remote areas are able to use technology to the best possible level. The Policy rightly points that the digital divide needs to be addressed. Only digitally competent teachers can make contributions to bridging this divide.

In the world of techno pedagogy, the teacher is a prosumer that is a producer and a consumer. Teachers who are equipped with the right levels of digital competence can create resources that could be shared among the teacher fraternity. A robust repository of such

resources will help to learn from expert teachers from different parts of the country. This will help to increase positive interdependence.

During the pandemic many teachers used digital technology effectively. Post pandemic many have blended digital and face to face learning to leverage the best of both worlds. This is a laudable initiative and schools must invest in Learning Management Systems (LMS) so that a proper blend of digital and non-digital strategies is achieved.

The need of the hour therefore is to reflect on Models like the TPACK (Technology-Pedagogical-Content Knowledge) Model. The TPACK framework by Punya Mishra and Matthew J. Koehler outlines how content (what is being taught) and pedagogy (how the teacher imparts that content) must form the foundation for any effective edtech integration. This order is important because the technology being implemented must communicate the content and support the pedagogy in order to enhance students' learning experience.

Conclusion

The NEP 2020, takes into consideration the present needs of the Indian society and the country at large. Hence it has comprehensively discussed the integration of technology and education. It aims at equipping the modern educator for a digital educational world. NEP 2020 places a tremendous thrust on Digital Education for a Digital India. Commitment on part of educational institutions, whole hearted involvement of teachers and support from the government will help to build digital competencies in teachers and make the vision of NEP 2020 a reality.

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16. Perception of Primary Teachers towards Language Policy of NEP

Mrs. Archana Bhople

Assistant Professor, Gurukripa College of Education and Research, Kalyan.

Abstract

Education helps us to grow personally, professionally and socially. It also builds up better versions of ourselves. Enriching our brains with new and valuable information improves our ability to think, analyze, and process the world around us. Education is important because it broadens our knowledge. With this knowledge, we can open our minds to new perspectives, ideas, beliefs, and cultures. Being presented with different perspectives about the world helps us quickly adapt to new and unfamiliar environments. It also teaches us to stay calm while facing any problems and also gives us techniques to deal with challenges in logical ways. A language is a system of sounds and written symbols used by the people of a particular country, area, or tribe to communicate with each other. It is a conventional spoken, manual (signed), or written symbol through which human beings become members of a social group and participants in its culture, and express themselves.

Keywords Language Policy, National Education Policy

Introduction

"Education is the manifestation of the divine perfection, already existing in man."-Swami Vivekananda

Language interacts with every aspect of human life in society, and it can be understood only if it is considered by society. When people have begun to reflect on language, its relation to thinking becomes a central concern. The intimate connection between language and thought, as opposed to the earlier assumed unilateral dependence of language on thought, opened the way to recognition of the possibility that different language structures might in part favour or even determine different ways of understanding and thinking about the world. All people inhabit a broadly similar world, or they would be unable to translate from one language to another, but they do not all inhabit a world the same in all particulars, and translation is not merely a matter of substituting different but equivalent labels for the contents of the same inventory.

Languages are immensely complicated structures. One soon realizes how complicated any language is when trying to learn it as a second language. If one tries to frame an exhaustive

description of all the rules embodied in one's language the rules through which a native user can produce and understand an infinite number of correct well-formed sentences one can easily appreciate the complexity of the knowledge that a child acquires while mastering a native vernacular.

Objectives of the Study

- 1. To study the perception of male and female teachers towards language policy of NEP.
- 2. To study the perception of State Board and CBSE Board teachers towards language policy of NEP.

Hypotheses

- 1. There is no significant difference between the perceptions of male and female teachers towards language policy of NEP.
- 2. There is no significant difference between the perceptions of State Board and CBSE Board teachers towards language policy of NEP.

Methodology

Method of Research

The main aim of the research is to find out the perception of primary teachers towards language policy of NEP. The survey method was used by researcher in present the research. The survey method involves a systematic and comprehensive study of particular group, community with a view to the analysis of the problem and a presentation of recommendation for its solution.

Population

The population of the present study consists of primary school teachers teaching in schools located in Thane district of Maharashtra.

Sample

The sample comprises of 38 teachers, which consists of 8 male and 30 female teachers. Out of these 38 teachers, 21 are State Board teachers and 17 are CBSE school teachers.

Research Design

The research design used in the study is basically a descriptive research where a survey has been used to find quantifiable information which is then subjected to statistical analysis.

Tools of the Study

In this research, the researcher has used a rating scale consisting of 20 statements. Each statement had to be responded on the basis of a 5 point rating scale.

Analysis of Data

Ho: There is no significant difference between the perceptions of male primary teachers and female primary teachers towards language policy

Gender	No of	Mean	SD	Degrees	of	Obtained	t value	Level of
	teachers			freedom		t value		significance
Female	30	95.2	14.67	35		0.071	At 0.05 level	Not significant
Male	8	86.5	14.57				= 2.028	
							At 0.01 level	
							= 2.719	

Table No.1: Perceptions of male primary teachers and female primary teachers towards language policy

The t value obtained is 0.071. Since the t value is less than the table values, the null hypothesis is accepted and it can be said that there is no significant difference between perceptions of primary teachers towards language policy when the teachers are classified with respect to gender.

Ho: There is no significant difference between the perceptions of primary teachers from CBSE Board and primary teachers from State Board towards language policy

Board	No	of	Mean	SD	Degrees	of	Obtained	t value	Level of
	teachers				freedom		t value		significance
CBSE	18		88.36	15.81	35		0.048	At 0.05 level	Not significant
SSC	20		97	12.55				= 2.028	
								At 0.01 level	
								= 2.719	

Table No.2 : Perceptions of primary teachers from CBSE Board and primary teachers from State Board towards language policy

When the primary teachers were classified according to the Boards of affiliation of the school and their perception regarding language policy of NEP was found, the t value was 0.048. This is less than the table value at both 0.05 and 0.01 levels. Therefore it is concluded that there is no significant difference between the perceptions of primary teachers towards language policy with respect to type of school. The null hypothesis is accepted.

Major Findings and Conclusions

There is no significant difference between the perception of male and female primary teachers towards language policy of NEP.

There is no significant difference between the perceptions of CBSE Board and State Board primary teachers towards language policy of NEP.

Regarding the language policy recommended in NEP 2020, there is no significant difference between the perception teachers from aided and unaided schools. The reason for this could be that irrespective of whether the teachers are teaching in CBSE board or State Board schools, the implementation of education policy of government is the same for both boards.

Discussion

India is a land where multiple languages are spoken. Language is the main hub on which the success of an educational system rests. NEP 2020 suggests 'Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language. Thereafter, the home/local language shall continue to be taught as a language wherever possible'. This is a recommendation that is very psychological in nature and will help in bringing about meaningful learning. Efforts must be made to promote the same.

The government should take initiative in promoting the language formula as recommended by NEP 2020. All stakeholders must be made aware about the language policy of NEP 2020. There should be good resource materials prepared to make language learning enjoyable. Digital platforms can be used effectively for language learning. Special language departments in schools can try innovative ways to implement the recommendations of NEP 2020 regarding language policy.

The Policy recommends 'All languages will be taught in an enjoyable and interactive style, with plenty of interactive conversation, and with early reading and subsequently writing in the mother tongue in the early years, and with skills developed for reading and writing in other languages in Grade 3 and beyond.' In this respect, the researcher suggests that there must be regular inputs for language teachers so that languages are taught through use of activities that cater to different learning styles.

Another significant suggestion in NEP 2020 is that 'every student in the country will participate in a fun project/activity on 'The Languages of India', sometime in Grades 6-8, such as, under the 'Ek Bharat Shrestha Bharat' initiative. In this project/activity, students will learn about the remarkable unity of most of the major Indian languages, starting with their common phonetic and scientifically-arranged alphabets and scripts, their common grammatical structures,

their origins and sources of vocabularies from Sanskrit and other classical languages, as well as their rich inter-influences and differences. They will also learn what geographical areas speak which languages, get a sense of the nature and structure of tribal languages, and learn to say commonly spoken phrases and sentences in every major language of India and also learn a bit about the rich and uplifting literature of each (through suitable translations as necessary).' This will be a very vital step to help us recognize and respect the diversity in our country. It will be a positive move towards national and social integration.

The policy also recognizes the place of foreign languages and suggests that 'English and foreign languages, such as Korean, Japanese, Thai, French, German, Spanish, Portuguese, and Russian, will also be offered at the secondary level, for students to learn about the cultures of the world and to enrich their global knowledge and mobility according to their own interests and aspirations.' Use of digital platforms and interaction with teachers and students from other countries will facilitate this process.

To conclude, it can be said that language is the basis of all educational systems. The recommendations of NEP 2020 regarding language learning need to be closely studied and all efforts must be made to have rich learning experiences in the context of language learning.

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17. A Study of the Awareness about NEP 2020 among the Teachers

Dr. Rukmini Jamdar

Assistant Professor, Seva Sadan's College of Education.

Abstract

Teachers are the agents of change. If NEP 2020 needs to be brought to fruition, the teachers will play the role of a catalyst. As teachers are major stakeholders in education, it is necessary for them to be aware of the recommendations of the National Education Policy. This paper is based on a study conducted to find the awareness among teachers regarding NEP 2020

Key Words: Teachers, awareness about NEP 2020

Introduction

The NEP 2020 announced by Ministry of Education, is a welcome move for the countrymen. It emphasizes on holistic multidisciplinary education for future nation's stakeholders. There are seven salient features or objectives of the announced National Education Policy apart from what is clearly evident in its documentation and which are in perfect harmony with Government's previous initiatives since 2014. NEP 2020 caters to different aspects of education to promote quality in Education. The teachers are one of the stakeholders who will be greatly influenced by this policy. Hence this research aims at finding the level of awareness about the policy among the teachers.

Topic of the research

The title of the study is 'A study of the awareness about NEP 2020 among the teachers'.

Objectives of the research

- 1. To analyse the level of awareness among the teachers teaching at different levels of education
- 2. To compare the awareness about NEP 2020 between teachers on the basis of gender
- 3. To compare the awareness about NEP 2020 between teachers on the basis of type of schools
- 4. To compare the awareness about NEP 2020 between teachers on the basis of type of level of schools

5. To compare the awareness about NEP 2020 between teachers on the basis of teaching experience

Hypotheses of the study

- 1. There is no significant difference in the awareness about NEP 2020 between the teachers based on gender.
- 2. There is no significant difference in the awareness about NPE 2020 between the teachers based on type of schools.
- 3. There is no significant differences in the awareness about NEP 2020 between teachers on the basis of type of level of schools.
- 4. There is no significant difference in the awareness about NPE 2020 between the teachers on the basis of their teaching experience.

Methodology of the study

The researcher used descriptive survey method to collect data from the school/college teachers.

Sample

The size of the sample is 50 teachers teaching in school/colleges.

Composition of the sample

S.No	Gender	Type of school
1	Male -8	Aided-14
2	Female -42	Unaided-36

Sampling: Random sampling method was used to collect data. The researcher posted the tool on a social media platform for the teachers.

Tool used for the study

The teacher prepared statements relating to NEP 2020 with a 3 point rating scale namely, agree, undecided and disagree. The researcher prepared a Google form consisting of two sections. The first section collected personal details and professional details of the teachers. The second section consisted of 30 statements relating to different aspects NEP 2020. The reliability of the tool using Cronbach's Alpha was 0.8.

1. Descriptive Analysis of data

Following is the statement -wise descriptive analysis of data

86.3 % of teachers were aware about NEP 2020. 98 % of the teachers were aware that there should be flexibility for students to choose their learning programmes as per NEP

2020.more than 50% of the teachers were aware that NEP 2020 gives emphasis beyond rote learning.78.4% were aware that focus on regular formative assessment of learning is one of the principle of NEP 2020.63.3% were not aware about the new educational structure according to NEP 2020 . 88.2% were aware that according to NEP 2020 experiential learning will be adopted in all stages of education. 52.9% were aware that according to NEP no language will be imposed on any state. 49% were aware that according to NEP 2020 Sanskrit will be offered at all levels of school and higher education. 58% were aware that according to NEP 2020, foreign languages will be offered at higher education. 86.3% were aware that according to NEP 2020 art -integrated education will be embedded in classroom transactions. 53 % respondents were aware that there is no imposition of any particular language regarding the medium of instruction up to grade 77% were aware that according to NEP 2020 the three language formula will continue to be implemented in schools.77% were aware that according to NEP 2020 every student in the country will participate in the 'language of India "project. 48% were aware that according to NEP 2020 teaching of languages will be based on experiential-learning pedagogy.84% were aware that according to NEP 2020 Indian Sign Language will be standardized everywhere for the hearing impaired students. 63% were aware that according to NEP 2020, Mathematics and computational skills will be given increased emphasis throughout the school years. 55% were aware that according to NEP 2020 the progress card of the students will assess beyond the cognitive domain. 50% were aware that according to NEP 2020 teachers will not be engaged in any other work but teaching. 56% of the teachers were aware that according to NEP2020 each teacher will be expected to participate in at least 40 hours of continuous professional development.66% of the teachers were aware that according to NEP 2020 vertical mobility of teachers based on merit is most important. 50% of the teachers were aware that according to NEP 2020 a 'gender inclusion fund' is for providing equity quality education for all boys. 66% were aware that according to NEP 2020 one of the key changes to the current system is moving towards institutional autonomy.82% were aware that according to NEP 2020 all higher education institutions shall aim to become multidisciplinary institutions by 2040. 50% of teachers were not aware that according to NEP 2020 higher education institutions will have the flexibility to offer different designs of master programmes. 90% of the teachers were aware that according to NEP 2020 there shall be counselling system in every education institution.77% were aware that

according to NEP 2020 one of the objective to establish national research fund is to recognise outstanding research and progress.77% of the teachers were not aware that NEP 2020 has given more priority for research and innovation by teachers.73% of the teachers were aware that according to NEP 2020 there will be a new accreditation framework for schools.57% of the teachers were aware that according to NEP 2020 there will be no M.Phil programmes.73% of the teachers were aware that according to NEP 2020 the B.Ed degree will be a four year integrated course by 2030.

2. Inferential analysis (objective wise)

1. Table No.1 showing the differences in the level of awareness on the basis of gender

Sex	N	Mean	S.D	Obtained	t	value(two	Level of significance	
				tailed)					
Male	8	36.25	2.8	0.32				Table value 0.9	
Female	42	34.74	4.1	(t value obtained is not					
				significant)					

From the above table no.1, it is clear that t value is 0.32 is less than the table value. Hence the hypothesis is accepted. There is no significant difference between the levels of awareness about NEP 2020 between teachers based on their gender.

2. Table No.2 showing the differences in the level of awareness on the basis of type of schools

Type of school	N	Mean	S.D	Obtained t value	Level of significance
aided	14	34.1	4.6	0.3	Table value 0.8
Unaided	36	35.3	3.6		(t value obtained is not significant)

From the above table no.2, it is clear that t value is 0.3 is less than the table value.

Hence the hypothesis is accepted. There is no significant difference between the levels of awareness of NEP 2020 when teachers are classified on the basis of type of schools.

3. Table No.3 showing the differences in the level of awareness on the basis of level of schools

Level of school	N	Mean	SD	One way ANOVA	Level of significance
				(F value)	
Primary	11	35.2	4.2	0.3	Table value 0.71
Secondary	24	35.2	3.9		(F value obtained is not significant)
Higher education	15	34.2	4.0		

From the above table, it is clear that F value is 0.3, is less than the table value. Hence the hypothesis is accepted. There is no significant difference between the levels of awareness of NEP 2020 among teachers when they are classified on the basis of level of schools.

1) Table no.4 showing the differences in the level of awareness about NEP 2020 on the basis of teaching experience

Experience of teachers	N	Mean	SD	One way ANOVA	Level of significance
				(F)	
Less than 5 years	27	34.3	3.6	0.3	Table value 1.2
Between 10 to 15 years	15	36.2	4.5		(F value is not significant)
More than 15 years	8	34.8	3.5		

From the above table no.4 it is clear that F value is 0.3 and is less than the table value. Hence the hypothesis is accepted. There is no significant difference between the levels of awareness of NEP 2020 among teachers when they are classified on the basis of teaching experience.

Conclusion

In this study it is seen that the teachers do have a considerable knowledge about the different aspects of NEP 2020. Moreover the level of awareness is similar in terms of sex, type of school, level of school taught by the teachers and teaching experience.

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18. Game - Based Learning can make Students Smarter

Dr. Vithoba Sawant

Assistant Professor, Oriental College of Education, Sanpada.

Mrs. Tejal Nikam

Assistant Professor, Oriental College of Education, Sanpada.

Abstract

Game-based learning can be used by educators to support students in developing skills. This paper examines reviews certain studies connected to game-based learning. Game-based learning includes key game design elements such as collaboration, choice, feedback as well as instructional design and there typically is a positive impact on student engagement and development. Studies show that Game-based learning along with collaboration can have a significant effect on student motivation. NEP 2020 also recommends use of games to make learning an enjoyable and engaging activity.

Keywords: Game-based learning, Cognitive skills

Introduction

"Learning is the modification of behaviour through experience and training."

-Gates

Learning situations are most natural and common in life and every one of us is learning one thing or other although we may not necessarily be aware of it. Learning is the process of acquiring new understanding, knowledge, behaviours, skills, values, attitudes and preferences. Playing and games have always been elements closely linked to teaching, but to- day they are claimed as a strategic innovation tool to improve learning processes. In the 21st century, game based learning tools for students are advocated to make learning easier and engaging. Game based learning has a core concept of teaching through repetition, failure and the accomplishment of goals through main aims as learn, unlearn and relearn. In teaching- learning process, students develop their own psychomotor skills and mental ability skills. The game used for learning needs to be well planned and designed in such a way that it starts from simple to complex. Though students may initially face difficulties or challenges, they try to learn the different

strategies to solve the problems. Game-based learning takes this same concept and applies it to teaching a curriculum. Students work toward a goal, choosing actions and experiencing the consequences of those actions. They actively learn and practice the right way to do things. The result is active learning instead of passive learning.

Why Games?

According to contemporary views regarding the education system, from students' point of view game based learning is very important. It helps in development of skills and makes the teaching- learning process meaningful. The game fosters student activity that can inspire to develop competencies and skills as they focus on the activities of the game. It can be a powerful content delivery mechanism over several sessions or function as individual learning activities.

In teaching learning process teachers should deliver content by dividing the syllabus into levels through which the students must progress through feedback from the teacher. In order for it to be effective, the game must have pre decided learning objectives, learning outcomes must be framed. The game should not over stress on competition.

The game might require students to work cooperatively and collaboratively to solve problems in learning situation. The game based method must make the students compete against one another in order to reach a personal best.

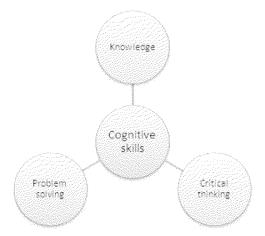
Game-Based Pedagogy for Competence Building in Higher Education

The most significant change in the curriculum of higher education in recent times worldwide has been the introduction of Competence Based Curriculum. Competence Based Education describes the competency and proficiency of a graduating student (Choudaha, 2008). It specifies what a graduate is expected to know, understand and would be able to do at the end of his/her program of study. These expected competencies are used as reference points to establish the relationship between education and the world (Kouwenhoven, Howie, & Plomp, 2003). When specific competencies such as innovation, creativity, problem solving, critical thinking, collaboration and self-management among others are developed through the curriculum design, students after graduating from college and universities are considered better 'work-ready' and are readily accepted by the industry. Occupation-specific competencies in the curriculum design reduce the unemployment and under-employment gap (Sudsomboon, 2007). The importance of implementing competency-based curriculum in universities serves two purposes: (i) competencies that are linked with an academic degree become the basis of assessment of the

course. (ii) Linking specific competencies to a programme helps faculty, students, employers and other international institutions understand the specific skills and knowledge acquired by the students as a result of their learning experience.

Amongst several pedagogical approaches used for teaching learning in higher education, the application of game based pedagogy cannot be ignored. Game based education not only addresses higher-order cognitive skills but also promotes creativity, innovation, critical thinking and problem-solving skills among students to a great extent. In traditional classroom settings, especially in developing countries such as India, not much attention is paid to building non-cognitive skills like patience, motivation, self-control. Game-Based Learning is a tool that encourages the students to learn at their own pace. It helps them to acquire and develop the skills and competencies required to adopt the right approach among the students.

The competencies built through game based learning can be divided into domain-specific competencies or generic competencies (Troitschanskaia, et al., 2017). Students adapt to flexible learning environment and apply knowledge in a way that is suitable to the situation. This is because unlike school learners, learners in higher education have more life experiences on which they can base important decisions and how information can be applied. Game based pedagogy helps students to simulate, interact, and imitate real life situations. Some of the cognitive skills that are enhanced by game based learning are knowledge of the content, development of a problem solving attitude and development of critical thinking.



Benefits of Game Based Learning

Some of the benefits of game based learning are

• Students are involved and active during game based learning.

- Competition plays very important role in motivation during learning.
- The students enhance goals that make them feel like they are progressing.
- Game based learning promotes skill development such as decision making, strategic planning, time management, taking holistic view of a situation
- It helps students to learn about procedure and the value of alternative ways.
- It helps students to become more confident, independent thinkers who are more prepared to take on large projects and carry them through to completion.

Game Based Learning - Challenges

Some challenges regarding using games in the classroom could be

- Dedicated efforts are needed to develop games that have good integration of content.
- In game based learning, teaching materials may be expensive and this may not be economical for many schools.
- Designing games needs a good blend of content, pedagogy and sometimes technology and this may be challenging.
- Different online software is needed to prepare games and often such software is not free or open source software.

Conclusion

Game-based pedagogy can be adopted as an effective tool for skill building in higher education institutions. Gamification helps students to have content clarity while learning the concepts. The game-based learning needs to be better explored to understand its importance and challenges from the learners' perspective. In teaching learning process teachers should think about all domains while implementing games in classroom situations. The benefits, drawbacks and challenges of game-based learning in higher education have also been highlighted.

NEP 2020 has noted that learning games and simulations will be developed. It also notes 'with a clear public system for ratings by users on effectiveness and quality. For fun based learning student-appropriate tools like apps, gamification of Indian art and culture, in multiple languages, with clear operating instructions, will also be created.' This is indeed a welcome step and will help to make game based learning a viable option.

The Policy also emphasizes that various topics can be taught through indigenous games. India has many games which were played from ancient times. We can derive inspiration from this rich tradition of our country and develop games aligned to the curriculum which will not

only make teaching learning engaging and enjoyable but will also reflect the rich heritage of our country.

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19. Analysis of the Indian National Education Policy 2020 towards Governance and Leadership in Higher Education

Dr. Manjusha D. Saijare

I/C Principal, A.G.S. College of Education (B.Ed.), Boisar, Dist.Palghar, Mumbai.

Abstract

Various aspects of the NEP 2020 are being discussed throughout the higher education ecosystem. A well-defined and futuristic education policy is essential for a country at school and college levels due to the reason that education leads to economic and social progress. Being a good leader means setting a good example for others. Your actions and behaviour as a leader should inspire and motivate others, whether you're teaching students or managing staff. Leading by example rather than by rank and title can help you build trust with students and staff to earn their respect. This paper made a study on academic leadership and found that leadership in academic field poses problems that are noticeably different than leadership in government agencies and companies.

Keywords :- Higher Education, National Education Policy 2020, NEP-2020, Overview & analysis, Leadership, Governance, Innovation and Entrepreneurship in Higher Education.

Introduction

Academic leadership poses problems that are noticeably different than in the businesses and government agencies, and differences were found in the style of leadership among the three types of leaders. Academic leaders need to work along with teaching, learning, research, and scholarship to bring out the best among academics. There are two aspects to the governance of any institution- external regulation and internal governance- and the NEP addresses both of them. With respect to external regulation, the significant change of NEP 2020 is to create a single regulator for higher education institutions. In the pre-NEP scenario, we had several regulators in higher education such as the UGC which governs universities, the AICTE for Engineering Education and the NCTE which regulates Teacher Education. NEP 2020attempts to improve governance by bringing in a single regulator, the Higher Education Commission of India(HECI), to regulate all institutions barring medical and law colleges.

The HECI is envisaged as a single overarching umbrella body for the entire realm of higher education, excluding medical and legal education. It will have four independent verticals – the National Higher Education Regulatory Council (NHERC) for regulation, the General Education Council (GEC) for standard setting, the Higher Education Grants Council (HEGC) for funding, and the National Accreditation Council (NAC) for accreditation.

Details of the four verticals

The first vertical of HECI will be the National Higher Education Regulatory Council (NHERC). It will function as the common, single point regulator for the higher education sector including teacher education and excluding medical and legal education.

The primary mechanism to enable the regulatory process will be accreditation. The second vertical of HECI will, therefore, be a 'meta-accrediting body', called the National Accreditation Council (NAC).

The third vertical of HECI will be the Higher Education Grants Council (HEGC), which will carry out funding and financing of higher education based on transparent criteria, including the IDPs prepared by the institutions and the progress made on their implementation. HEGC will be entrusted with the disbursement of scholarships and developmental funds for launching new focus areas and expanding quality programme offerings at Higher Education Institutes across disciplines and fields.

The fourth vertical of HECI will be the General Education Council (GEC), which will frame expected learning outcomes for higher education programmes, also referred to as 'graduate attributes'.

With reference to the second aspect of governance, that is, the internal governance structure of an institution, the NEP brings in a new approach. Towards this aspect, the NEP focuses on institutional leadership and self-governance. A Board of Governors (BoG) will be established for institutions that have received the appropriate graded accreditations that deem the institution ready for such a move. It will consist of highly qualified, competent, and dedicated individuals having proven capabilities and a strong sense of commitment to the institution.

The implications and nuances of the regulatory architecture proposed. The stated objective in setting up a single regulator is to avoid inter-organizational conflicts inherent in a multiplicity of organizations. The NEP observes that the multiplicity of regulatory bodies creates conflicts of interest among these bodies, and a resulting lack of accountability. In the new

regime, the distinct functions of regulation, accreditation, funding, and academic standard setting will thus be performed by distinct, independent, and empowered bodies but under a common umbrella. This is considered essential to create checks-and-balances in the system, minimize conflicts of interest, and eliminate concentration of power. Thus this architecture eliminates the duplication and disjunction of regulatory efforts by the multiple regulatory agencies that exist at the current time.

Therefore, the NEP signals a change in the approach towards regulation, one of simplification and rationalization. In fact this is a fundamental principle stated at the very outset: a 'light but tight' regulatory framework. The document speaks of transforming and overhauling regulation; criticizing the previous regime as being heavy-handed and over-regulated. It requires a relook and repealing of existing Acts and restructuring of various existing regulatory bodies to enable this single point regulation. Its purpose is to ensure integrity, transparency, and resource efficiency of the educational system through audit and public disclosure while encouraging innovation and out-of-the-box ideas through autonomy, good governance, and empowerment.

Certain implications of NEP which are not explicitly stated are equally significant. The first is empowerment. This is true both of the HECI and the Higher Education Institutions it seeks to regulate. With reference to the HECI, to ensure that the four institutional structures carrying out these four essential functions work independently yet at the same time synergistically towards common goals, these four structures will be set up as four independent verticals within one umbrella institution, the Higher Education Commission of India (HECI).

The empowerment extends to the HEIs that the HECI seeks to regulate. Government will phase out the affiliation of colleges in 15 years and a stage-wise mechanism will be established for granting graded autonomy to colleges. Over a period of time, every college is expected to develop into either an autonomous degree-granting College, or a constituent college of a university. Another aspect of autonomy is the stress on self-governance. Through a suitable system of graded accreditation and graded autonomy, and in a phased manner over a period of 15 years, all HEIs in India will aim to become independent self-governing institutions pursuing innovation and excellence. The Board of Governors of an institution will be empowered to govern the institution free of any external interference, make all appointments including that of head of the institution, and take all decisions regarding governance. There shall be overarching legislation that will supersede any contravening provisions of other earlier legislation and would

provide for constitution, appointment, modalities of functioning, rules and regulations, and the roles and responsibilities of the Board of Governors. New members of the Board shall be identified by an expert committee appointed by the Board; and the selection of new members shall be carried out by the Board of Governors itself. It is envisaged that all HEIs will be incentivized, supported, and mentored during this process, and shall aim to become autonomous and have such an empowered Board of Governors by 2035.

Side by side with autonomy, there is also the accent on responsibility and accountability. Thus, the Board of Governors shall be responsible and accountable to the stakeholders through transparent self- disclosure of all relevant records. It will be responsible for meeting all regulatory guidelines mandated by HECI through the National Higher Education Regulatory Council (NHERC). While being provided with adequate funding, legislative enablement, and autonomy in a phased manner, all HEIs, in turn, will display commitment to institutional excellence, engagement with their local communities, and the highest standards of financial probity and accountability.

Another implication of a single regulator is uniformity of regulation, thus creating a level playing field. Public and private higher education institutions will be governed by the same set of norms for regulation, accreditation and academic standards. This will also ensure that the state-backed university system will compete on equal terms with private and foreign universities.

This brings me to the NEP's emphasis on Quality. The document repeatedly speaks of the quality imperative, reiterating the objectives of excellence, innovation and merit. It observes that effective governance and leadership enables the creation of a culture of excellence and innovation in higher education institutions. It also states that the common feature of all world-class institutions globally including India is strong self-governance and outstanding merit-based appointments of institutional leaders. The primary instrument to attain these goals is institutional leadership. Structurally, there are several provisions which enable this focus on excellence and merit. As we saw, acquiring the appropriate graded accreditations is a pre-condition for the creation of the Board of Governors of a Higher Education Institution. It is only upon receiving the appropriate graded accreditations that deem the institution ready for such a move, that the Board of Governors (BoG) can be established. It will consist of highly qualified, competent, and dedicated individuals having proven capabilities and a strong sense of commitment to the institution. Measures will be taken at all HEIs to ensure leadership of the highest quality and promote an institutional culture of excellence. Equity considerations will also be taken care of

while selecting the members. All leadership positions and Heads of institutions will be offered to persons with high academic qualifications and demonstrated administrative and leadership capabilities along with abilities to manage complex situations. Leaders of an HEI will demonstrate strong alignment to Constitutional values and the overall vision of the institution, along with attributes such as a strong social commitment, belief in teamwork, pluralism, ability to work with diverse people, and a positive outlook. The selection shall be carried out through a rigorous, impartial, merit-based, and competency-based process led by an Eminent Expert Committee (EEC) constituted by the BoG. While stability of tenure is important to ensure the development of a suitable culture, at the same time leadership succession will be planned with care to ensure that good practices that define an institution's processes do not end due to a change in leadership; leadership changes will come with sufficient overlaps, and not remain vacant, in order to ensure smooth transitions. Outstanding leaders will be identified and developed early, working their way through a ladder of leadership positions.

To ensure quality as well as an effective accountability mechanism, the policy appears to rely on the tool of the IDP. Each institution will make a strategic Institutional Development Plan on the basis of which institutions will develop initiatives, assess their own progress, and reach the goals set therein, which could then become the basis for further public funding. The IDP shall be prepared with the joint participation of Board members, institutional leaders, faculty, students, and staff.

Another tool proposed for effective regulation is transparency and disclosure. According to the NEP, financial probity, good governance, and the full online and offline public self-disclosure of all finances, audits, procedures, infrastructure, faculty/staff, courses, and educational outcomes will be effectively regulated. This information will have to be made available and kept updated and accurate by all higher education institutions on a public website maintained by NHERC and on the institutions' websites. Any complaints or grievances from stakeholders and others arising out of the information placed in public domain shall be adjudicated by NHERC. Feedback from randomly selected students including differently-abled students at each HEI will be solicited online to ensure valuable input at regular intervals.

For Indians, and India watchers, one needs to keep in mind that the New Education Policy is taking place alongside this shakeup in education; so there is the possibility that policy and practice can adapt to or facilitate the organic changes taking place in the education arena. Closing the gap between technology potential and its realization is largely a function of policy leadership, private initiative and public acceptance. This is where the New Education Policy can play a role.

Conclusion

According to the new education policy, a huge boost will be taken in the education sector and the doors of new education will be opened for all. According to the educational policy, various researches will be promoted and the doors will be opened to the students for new ideas. In the coming time, new initiatives will be added to the curriculum in India. From this new ventures will emerge. The addition of new activities will give a new dimension to education. When the management is stronger, then the education is also stronger. At the same time, due to the new education policy, education will get proper direction. This contribution in the field of education can lead to the development of the country.

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20. Development of Game Based Pedagogy for Understanding the Concept of Communication Skills among B. Ed. Student - Teachers

Dr. Aradhana Anuraag Gokhale

Assistant Professor, Guru Nanak College of Education and Research, Bhandup.

Abstract

The system of education could be made more innovative and futuristic in order to respond to the changing needs of the society. B.Ed. curriculum is constructed in order to provide training and experience to the student-teachers to take responsibilities and cope up with the expectations. The purpose of this paper is to emphasise the Development of Game Based Pedagogy for Understanding the Concept of Communication Skills among B.Ed. student-teachers. Researcher used Chinese Whispers Drawing skills, Telling Versus Showing and data was collected from 30 student-teachers. The study was carried out by Pre-Test and Post-Test only Experimental Group Design. Researcher in this study found that the Development of Game Based pedagogy is effective to understand the concept thoroughly and arouse curiosity and interest among the B.Ed. student-teachers.

Keywords: Communication Skills, Games, Student-Teachers.

Introduction

In this changing world, pedagogy as a whole is undergoing a fundamental evolution. The current digital era demands a new set of transferable skills to meet these needs. Globally, many educators are developing new standards under the umbrella title of 21st Century Competencies. Games are tools for 21st Century Competencies. Games, Gamification of Learning, and Game Based Learning are not intended as replacements to any current effective pedagogy. Rather, these approaches can be valuable additions to the teaching toolbox that educators can leverage to engage the modern learner. Game Based Learning puts the student in the driver's seat, with the teacher's role shifting from 'sage on the stage to guide on the side'.

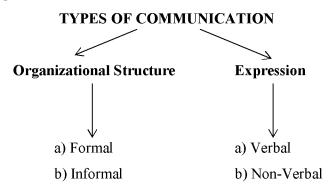
There are five steps to integrating game-based learning into your classroom

- Determine the purpose of Game-Based Learning
- Play the Game yourself, Making sure it is aligned with learning goals

- Ensure it meets expectations from parents
- Dedicate time to consistent in-class play
- Assess progress throughout play, informing instruction

Concept of Communication

Communication is a process of transferring, exchanging and understanding information, ideas, views and feelings between two or more persons. Communication is the activity of conveying meaningful information. Communication requires a sender, a message and a recipient. Communication can occur across vast distances in time and space. The communication process is complete when the receiver has understood the message of the sender. There are different ways of communicating. Communication can be categorized according to the media and means adopted for communication.



Formal Communication

It flows through an officially prescribed route. It is related to the various positions in an institution and hence is associated to formalities, rules and procedures.

Informal Communication

This type of communication arises on account of informal relationships between the persons concerned. Informal Communication grows instinctively from personal and group interest. Informal Communication can be expressed by a nod, smile or gesture, and sometimes even through silence.

Verbal Communication

Verbal or Oral Communication is one of the most widely used medium of Communication. Oral Communication has the advantage of speed correctness and complete interaction. Verbal Communication gives importance to language. Verbal Communication is

expressed using semantics or meaning of words. Verbal Communication is more effective when there is proficiency in language.

Non-verbal Communication

Non-verbal Communication is wordless Communication. It is the most important channel for conveying meanings. Paintings, drawings and sculptures are media through which artists convey their ideas, concepts and feelings. We communicate non-verbal messages in three languages: sign language, action language and object language.

Sign language

It is used to replace words, numbers and punctuation marks by gestures.

Action language

It includes all the movements which we do not exclusively use as signals i.e. walking, running, eating etc.

Object language

It is the intentional or non-intentional display of material things i.e. art objects, clothing, jewellery etc.

Body Language

Body language is a silent language-yet, it speaks louder than words. This refers to the unspoken messages and signals that one conveys with the body. For e.g., gestures, postures, facial expressions, eye contact, bodily contact or touch etc.

Rationale of the Study

Studies have been conducted on Communication Skills related to Developing, learning and evaluating among Preschool children with visual Impairments, Physical Education and Sports students, students with Autism using iPad, post graduate Internal Audit students, Adolescents with behavioural problems, Information System students in Australian and Portuguese higher education, Visually Impaired Early Adolescents through a Psycho-Education Program, nursing students, careers working with Multiple Learning Disabilities, Diverse Young Learners with strategic teaching, Accounting students, strategies for Pre-schoolers and Schoolaged children and secondary graduate student teachers.

As we all know, the student-teachers of B. Ed. are the teachers of tomorrow. They will be imparting different skills and teaching different subjects to the school students. To be able to do that effectively, it is necessary that they ought to develop certain capabilities/skills. The

present study seeks to develop the Game Based Pedagogy for understanding the Concept of Communication Skill among student-teachers of B. Ed. so that later on they become effective teachers.

In view of personal experience of the researcher, the researcher felt the need of conducting the research with respect to student-teachers. Hence, the researcher proposes to develop Game Based Pedagogy for Understanding the Concept of Communication Skills among B.Ed. student-teachers.

Statement of Problem

Development of Game Based Pedagogy for Understanding the Concept of Communication Skills among B. Ed. Student-Teachers

Aim of the Study

The major aim of the present research was to develop the Game Based Pedagogy for Understanding the Concept of Communication Skills among B. Ed. Student-Teachers.

Objectives of the study

- To study the Pre-test Scores of the Concept of Communication Skills among B. Ed. Student-Teachers.
- To develop Game Based Pedagogy for understanding the Concept of Communication Skills among B. Ed. Student- Teachers.
- To study the Post-test Scores of the Concept of Communication Skills among B. Ed. Student-Teachers.
- To compare the Pre-test and Post-test Scores for Understanding the Concept of Communication Skills among B. Ed. Student-Teachers.

Hypotheses of the Study

Following null-hypotheses were formulated to test the hypotheses.

• There is no significant difference between pre-test and post-test mean scores of the Concept of Communication Skills of the experimental group.

Methodology of the study

The Experimental method was employed in this study. 30 student teachers were randomly selected and Game Based Pedagogy was used on experimental group. Pre-test, post-test on experimental group was followed.

Sample and Data Collection

A sample of 30 B. Ed. student-teachers (from unaided Teacher Education Institutions affiliated to the University of Mumbai) was surveyed. The method of sampling used was Random sampling.

Tools for Data Collection

The following tools were used by the Researcher:

a. Concept of Communication Skills (Pre-test and post-test) was prepared.

The researcher had prepared 20 marks of Multiple-Choice Questions for the pre-test and post-test.

b. Game Based Pedagogy for Understanding the Concept of Communication Skills was prepared.

Part 1: Researcher used the Chinese Whisper Game, to introduce the concept of Communication Skills. Researcher randomly selects six Student-teachers and makes them stand in a straight line and instructs the student-teachers to do the following activity. Researcher gives the short and simple verbal message, whispered to the student-teacher at the front of the line. The first student-teacher whispers to the next student-teacher, repeats this until the message reaches the end of the line. Messages must be whispered and only said twice between sender and receiver. Once the last participant has received the message, he/she is to repeat the message aloud for the whole group to hear. Compare the final message with the original message. The activity is repeated for long message too. Game Based Pedagogy developed the critical thinking skills, knowledge and confidence among student-teachers.

Part 2: Researcher has conducted Game to understand the topic 'Telling vs. Showing in Communication Skills'. Researcher conducted the following game by instructing student-teachers. "Please follow my words. Raise your right hand over your head. Keep following my words. Make a fist. Please make sure to follow my words. Rotate your fist three times and then put your fist on your forehead! (Just before this moment, Researcher places her own fist on her jaw!)". Researcher raised the question to student-teachers, "What happened"? Researcher has asked you to follow her words for three times, but you follow her actions! Why?" the researcher further explained that actions speak louder than words. It was very full of fun activity and useful to understand the Telling vs. Showing in Communication Skills.

Part 3: The Researcher used a game to understand the topic 'Concept of Double Messages in Communication Skills'. Student-teacher sends a "double message" by saying one thing but transmitting an opposite message with facial expressions and body language. For e.g.: Say, "I'd really like to go to the beach" but the actions that accompany include frowning, looking down and slumping one's shoulders. The participants were instructed to keep their voice flat. The researcher gave everyone a chance to send a double message.

Part 4: Researcher has used game, to understand the topic 'One Way Communication'. Researcher tells the student-teacher that she will describe a drawing which she has made of a bug. Without seeing the drawing, you are going to draw the bug that she will describe. Researcher instructs student-teachers neither to ask any questions nor talk to each other. After everyone is done with the activity, student-teachers are asked to hold the bug up for everyone in the group to see and are asked to note some of the similarities and differences. It was a fun filled activity and useful to understand the topic 'One Way Communication'.

Part 5: Researcher has used a game, to understand the topic 'Getting Feedback'. Researcher identifies volunteers/student-teachers who will try to communicate with others without and with the use of feedback or non-verbal signals with proper directions to copy a simple drawing. After the student-teacher finishes, show the two figures, keep the score of how many student-teachers copied the figures accurately. Student-teachers understand the importance of getting feedback.

Administration of Test

a. Administration of Understanding the Concept of Communication Skills Scale Pre-Test

Before administration the Game Based Pedagogy for Understanding the Concept of Communication Skills researcher has implemented Concept of Communication Skills Scale for B. Ed. students. Thus the Pre-test used is Concept of Communication Skills Scale.

b. Administration of Game Based Pedagogy for Understanding the Concept of Communication Skills

A Game Based Pedagogy for Understanding the Concept of Communication Skills was based on Concept, Telling v/s Showing in Communication Skills, Concept of Double Messages in Communication Skills, One Way Communication and Getting Feedback.

c. Administration of Understanding the Concept of Communication Skills Scale Post Test

After administration of the Game Based Pedagogy for Understanding the Concept of Communication Skills, the researcher has implemented the Understanding the Concept of Communication Skills Scale for B. Ed. students to find out the level. Post-test is used as Concept of Communication Skills Scale.

Techniques of Data Analysis

The following descriptive and inferential statistical techniques were used for data analysis:

- 1. Descriptive Analysis (with Mean)
- 2. Inferential Analysis (with t-test)

Analysis and Interpretation

Hypothesis 1: There is no significant difference between pre-test and post-test mean scores of the Concept of Communication Skills of the experimental group.

Table No. 1: Comparison of Pre & Post Test Means Scores of the Experimental Group

Experimental Group	No. of Student - Teachers	Mean	't' Value
Pre - Test	30	46.37	
Post – Test	30	60.67	59.46

Significant at 0.01 level

The above table shows that there is a significant difference between the pre-test and post-test mean scores of the experimental group as revealed by the 't' value (59.46) which is significant at 0.01 level.

The better performance of the experimental group in the post test is clearly noticed when it is compared with its pre-test performance. This is a definite indication of the effectiveness of the application of Game based Pedagogy for the Concept of Communication Skills.

Finding and Conclusion

There is a significant difference between the pre-test and post-test mean scores of the experimental group as revealed by the 't' value (59.46) which is significant at 0.01 level. It means student-teachers understanding is much better in post-test as compared with its pre-test.

The study shows that use of Game Based Pedagogy like Chinese whispers Drawing skills, Telling Versus Showing were effective for understanding the concept of Communication Skills. Student-teachers got encouraged, motivated and actively participated when they are given

an opportunity to think and discuss. It is an active learning technique where student-teachers have brain storming session. This helped in understanding the concept of Communication Skills effectively and clear their doubts. These activities made the teaching learning process interesting and easy.

Implications

Policy makers

The present research will help to make teaching and learning more effective. It helps the policy makers to know and realize the effect of intervention strategy and can be included as few technique-based lessons as part of B.Ed. internship syllabus and implemented as innovative techniques in the field of Education.

Principals

The present research will help the Principal/ head of the institution to encourage the Teacher Educators to use innovative techniques for achieving the goals of the institution. While planning for teaching learning process for the entire year, the principal should motivate and encourage the faculty to use different Game Based Pedagogy, activity-based teaching, cooperative techniques as well as to provide needed time and resources to make teaching learning process more effective, interactive and for student's better understanding in order to improve the result/ performance of the students and the institution.

Teacher Educators

The present research will be useful to Teacher Educator to enhance and encourage them to implement different games for teaching learning process to make the student-teachers understand the concepts better. The teacher educators are the pillars of any educational institutions; therefore, it is important that the teacher -educators understand the effectiveness of Game based Pedagogy, activity-based teaching and to make the teaching learning process more interesting, encouraging and motivating. The teacher educators should be introduced/ trained with all new technologies/ techniques available to be well versed to incorporate and to make use of the different activities and techniques to be conducted in the teaching learning process.

Student-Teachers

The present research will be useful to the student-teachers, as any topic taught by using different activities/ Game Based Pedagogy / innovative and co-operative techniques tends to make learning interesting, helps to understand the concepts better, makes learning easy and helps

to remember longer. It also provides student-teachers an interesting role, encourages them to participate actively, provides opportunities to be involved. Student teachers can share their views by thinking about the related aspects. The student-teachers are the future teachers, part of the educational institution and will be taking part in planning school activities, which will help them to implement different techniques in their teaching. So, the scope of using and benefiting the techniques will be broader.

NEP 2020 has advocated use of games for learning. Classroom games infuse enthusiasm and engagement in learning. Games provide a non-threatening ethos to learn. Student participation is spontaneous. Hence it will be worthwhile if the Teacher Education Curriculum includes experiences where prospective teachers are trained to devise and use games as a pedagogical tool.

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21. Flipped Classroom Approach - Innovative Tool of Teaching

Dr. Anjali G. Kirkinde

Asst. Professor, Gurukrupa College of Education & Research, Kalyan.

Abstract

The NEP 2020 emphasizes the teacher's contribution, their sacrifice and efforts to uphold the dignity, respect and honour of this profession. Teachers are the main stakeholders of executing NEP. They have to mould themselves accordingly to implement the policy. New techniques, methods of teaching should be adopted by the teachers. The role of teacher is now that of a facilitator rather than teacher. This article deals with concept of Flipped Classroom which can be one of the innovative and effective tools in the hands of teachers.

Key Words: Flipped Classroom Approach, NEP 2020

Introduction

NEP recommends restructuring of the complete education domain of India. It talks about foundational literacy and numeracy and skill education to remodel India to face 21st century challenges. The success of any education policy depends upon efforts of the teachers. The NEP emphasizes the teacher's contribution, their sacrifice and efforts to uphold the dignity, respect and honour of this profession. This will happen given that the policymakers consider creating an office like Teacher Recruitment Board/ Indian Teaching Services on the lines of Indian Administrative Services or State Civil Services and speeding the recruitment of the teachers which is pending for a couple of decades. The policy makers should be light in their approach, while giving all of them the perks and facilities so on attract the young, intelligent and inventive minds to this profession but should be tight while monitoring them for getting the required results, making them accountable and responsible. Flipped Classroom is one of the innovative approaches which can be used by the teachers to achieve the goals of NEP 2020.

What is Flipped Classroom?

The Flipped Classroom could be a Blended Learning Model during which traditional ideas about classroom activities and homework are reversed, or "flipped." In this model,

instructors have students interact with new material for homework first. They then use class time to debate the new information and put those ideas into practice.

The Four Pillars of F-L-I-P

To make sure you're getting the most out of a flipped learning model, the four pillars of F-L-I-P need to be inserted in the curriculum and lessons.

F: Flexible Learning Environment

When you eliminate traditional lecture, you are required to shift from the static rows of seating in favour of flexible arrangements. Furniture should be modular and permit for a spread of group and individual work. Likewise, the timing of lessons must be flexible to permit for students to completely explore a subject and comprehend it at their own pace.

L: Learning Culture

Instead of traditional teacher-centric learning, the flipped classroom puts students at the centre of the lesson. Students guide the pace and magnificence of learning, and instructors play the role of the "guide on the side." Instructors will help students through an experiment or guide them through a practice set after they need assistance applying new information.

I: Intentional Content

Instructors who embrace the Flipped Learning Model are always on the lookout for methods to maximise their classroom time in order that students are actively engaged in learning and hands-on practice. This approach requires prioritizing lessons that incorporate such a model and deciding ways to encourage learners to learn independently.

P: Professional Educator

The Flipped Model requires instructors to constantly monitor their students so as to spot who needs help with what and why. Instructors have to be responsive and versatile, and they must understand that this highly active type of teaching takes great pedagogical skill. Despite being less visible, instructors have to be highly involved to nurture students during a flipped classroom.

How to Flip Your Classroom?

Following are the steps to flip the classroom

1. Determine Your Technology

Since flipped teaching relies so heavily on technology to make and share videos of lectures, choosing the technology which will best facilitate your film, edit, and share your videos

could be a crucial beginning. The teacher must choose a hosting service and determine how students will access the content. Additionally, the teacher has to trace progress. An LMS will facilitate this and keep everything streamlined in one place as you launch your program.

2. Create Your Videos and Content

When it is time to film, keep it short and sweet. Teachers realise a five-minute video is sufficient to cover what might take a fifteen minute lecture. Teachers may procure videos and other interactive content from quality open educational resource (OER) providers like CK-12 and MERLOT.

3. Be transparent with students

Before you launch, clearly explain what flipped learning is and why you are doing it. Making a significant change in your classroom culture is difficult, and flipping the mindset isn't easy. Be prepared to deal with concerns and to revisit the "how" and also the "why" often.

4. Make Your Students Accountable

One must remember that Flipped Learning Model depends on student participation. If they don't participate adequately with the at-home learning, then the actual classroom time will not be effective because students won't be prepared to have interaction along with your hands-on activities. Make certain to plan a system that tracks and holds students responsible to watch the videos circulated for learning before coming to the class. One way to try to do this is by using entry tickets or short formative quizzes at the start of a lesson. These will help the teacher to determine which students did their homework, who didn't, and who needs help. If the teacher is using an LMS, then use it effectively to cater to individual differences and differentiate instruction accordingly.

5. Keep it up

Find a schedule and system that works for you in order that filming, lesson planning and assessment all become routine. Once you've got a system in place, leverage it so you'll be able to achieve the learning outcomes as planned.

Tools for Flipped Classroom

There are many tools for flipped classroom that can be used to help an instructor employ the approach confidently and with success. While there are many tools for flipping or inverting the classroom, it is recommended that one keeps all materials and the student experience in a centralized hub. That is to say the Learning Management System must be effectively utilised.

Below are some of the platforms that can help teachers incorporate flipped learning into their teaching.

Khan Academy

Khan Academy may be a useful gizmo for video lectures. It has over 3,000 videos covering K-12 subjects. Educators also can view how far a student has gotten in their lessons, giving them a more robust idea of what to expect after they revisit within the physical classroom.

Nearpod

Nearpod allows teachers to have interaction with interactive lessons. Some interactive experiences include Polls, Virtual Reality Field Trips, Open-Ended Questions, and Quizzes.

Play posit

Play posit is an interactive video tool that focuses on a seamless workflow, learner engagement, easy authorship, and tracking of performance. As mentioned on their website, interactive video is thrice as effective as standard video.

Brain POP

Brain POP is an animated educational site for college kids. It may be accustomed help teach a variety of subjects with fun, entertaining animated movies.

Flipped Classroom Activities

Removing teacher-centered lecture from class time may be a major paradigm shift for many instructors, and designing lessons that put students at the centre requires practice. Try these flipped classroom activities as a launch pad for more creative lessons.

Ensure Meaningful Assessment

One secret to success for the flipped model is to ensure that students come to class with the background information they have. Additionally make sure that homework materials are engaging, arrange to start class with a short assessment to ensure students are ready to learn.

Question Generation

Have a lively question and answer session to resolve students' doubts. Have students write questions on a whiteboard, or provide the highest five questions on an board or chart and have students vote via sticker for those they need answered. The answers may be provided by the teacher or the teacher can break students into groups to assist one another resolve their doubts.

Fishbowl Practice

Ask student volunteers to come to the front to resolve a controversy, engage in discussion or perform a task while everyone watches. Observers should take notes on procedure and make suggestions to their peers. This may not work for all topics but it is interesting when used to solve a math problem or while editing a language assignment.

Role Play

For topics from Social Sciences, a role play can be assigned and students learn by representing different perspectives. Assign roles and ask students to share why they have enacted in a particular manner. For deeper thinking, make them switch roles midway through the exercise to explore new points of view.

Stay Active

Active learning is vital to keeping students engaged with new material during class time. Make sure to have kinaesthetic activities for students. Games and activities can be included to have engaging and enjoyable learning.

National Education Policy 2020 has emphasized that students learn in stress free atmosphere where their critical thinking and creativity are enhanced. Conceptual thinking and flexibility have been given much importance in the Policy. The Policy also states that it is necessary to reduce curriculum content and enhance essential learning and critical thinking. To realise this teachers need to adopt approaches like Flipped Learning which will help to redefine the way students learn.

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22. NEP 2020 and Integrated Teacher Education - Pondering through the Glass Window

Dr. Bhakti M. Jaisinghani

Assistant Professor, Seva Sadan's College of Education, Ulhasnagar.

Abstract

The National Education Policy 2020(NEP 2020) is a comprehensive frame work from Elementary Education to Higher Education as well as vocational training in both rural and urban India. The main aim is to ensure that all students at all levels of school education are taught by passionate, motivated, highly qualified, professionally trained and well-equipped teachers. In this context, NEP 2020 recommends ground breaking policy changes in teacher education system at different stages (foundational, preparatory, middle and secondary) of the school education both at pre-service and in-service. The teachers will require training in high quality content as well as pedagogy, teacher education will gradually be moved by 2030 into multidisciplinary colleges. This paper highlights NEP 2020 recommendations for Integrated Teacher Education Programme.

Key Words NEP 2020, Teacher Education, Multidisciplinary perspective

Introduction

The National Education Policy 2020(NEP 2020) is a comprehensive frame work from Elementary Education to Higher Education as well as vocational training in both rural and urban India. The main aim is to ensure that all students at all levels of school education are taught by passionate motivated, highly qualified, professionally trained and well-equipped teachers. In this context, NEP 2020 recommends ground breaking policy changes in teacher education system at different stages (foundational, preparatory, middle and secondary) of the school education both at pre-service and in-service. The teachers will require training in high quality content as well as pedagogy, teacher education will gradually be moved by 2030 into multidisciplinary colleges.

The Vision of NEP 2020 is **to create the team of teachers that will shape the next generation.** Teacher preparation is an activity that requires multidisciplinary perspectives and knowledge, the formation of values, and the development of practice under the best mentors. Teachers must be grounded in Indian values, ethos, knowledge and traditions, while also being well versed in the later advances in education and pedagogy (NEP 15.1).

NEP has proposed three types of Teacher Education programme:

4 -year Integrated Teacher Education Programme

•By 2030 the minimum degree qualification for teaching will be a 4-year integrated B.Ed. degree that teaches a range of knowledge, content and pedagogy and includes strong practicum training in the form of student-teaching at local schools."

2-year B.Ed. programme

• The year B.Ed. programme will also be offered by the same multidisciplinary institutions offering the 4 year integrated B.Ed. and will be intended only for those who have obtained already Bachelor's Degrees in other specialized subjects."

1-year B.Ed.programme

•These B.Ed. programme may also be suitably adapted as I year B.Ed. programme, and will be offered only to those who have completed the equivalent of 4 year multidisciplinary Bachelor's Degrees or who have obtained a Master's degree in a specialty and wish to become a subject teacher in that specialty

This paper highlights NEP 2020 recommendations for Integrated Teacher Education Programme.

Integrated Teacher Education Programme

The Integrated Teacher Education Programme (ITEP) aims at the dual purpose of providing student teachers disciplinary knowledge along with the professional knowledge in an integrated manner. Since the program will be equivalent to an undergraduate degree (B.Sc. /B.A. / B.Com.) and Teacher Education Degree, the curriculum of this program includes different courses and activities essential for both the degrees.

The Integrated Teacher Education Programme (ITEP) shall be in multi and inter disciplinary academic environment and shall be implemented in a phase wise manner commencing in a pilot mode.

The four years Integrated Teacher Education Programme (ITEP) Arts, Commerce and Science Stream is offered after Senior Secondary (+2) and aims at preparing committed, responsible and professional teachers. This programme is intended to result in a paradigm shift in teacher preparation. The curriculum of this four-year integrated programme is designed inculcating the world's best practices in the field of teacher education sector. This is a specialised programme with intrinsic integration of pedagogy and content, along with sustained engagement with liberal disciplines of knowledge and field of education.

This programme integrates general studies comprising Mathematics and Science, Social Sciences and Humanities and also professional studies comprising perspectives in education, other core education courses, curriculum and pedagogy of school subjects and practicum related to the tasks and functions of a school teacher. It maintains a balance between theory and practice and ensures coherence and integration among the various components of the programme. It is expected to equip the aspirant school teacher with the requisite attitude, skills and knowledge to address the challenges of becoming an effective school teacher.

Curriculum of Integrated Teacher Education

A. Curriculum- It includes:

- 1. Languages
- 2. Disciplinary Subjects
- 3. Educational courses (Hard core and Soft Core)
- 4. Enhancing Professional Competency (EPC) Courses
- 5. Skill development courses
- 6. Foundational Courses
- 7. Optional courses
- 8. Interdisciplinary courses

Practical inputs may include the following

- 1. Performing Arts and Fine Arts
- 2. Physical Education and wellness
- 3. Classroom Management and Managerial Skills
- 4. School Internship Programme.

B. Pedagogy

Since content inputs are in credits theory, practical and tutorial system may be adopted. For teacher training at secondary level teacher education following pedagogical emphases must be given.

- 1. Activity based teaching learning methods
- 2. Field trips and visits
- 3. Constructivist approaches
- 4. Experiential learning
- 5. E-learning methods

- 6. Co-operative learning
- 7. Simulation methods
- 8. Blended learning approaches
- 9. Group discussion
- 10. Project method
- 11. Discovery approaches
- 12. Art-integration as a cross –curricular pedagogical approach
- 13. Sports-integration as a cross curricular pedagogical approach
- 14. Support for students with special talents-secondary level teacher training will include methods for the reorganization and fostering of such student talents and interest.

C. Internship Programme/school life experiences/ mentorship

A well-structured internship programme for secondary level teacher education must be developed keeping practical components of programme, i.e., Pre-internship, Actual internship and Post Internship.

D. Assessment of Programme (Evaluation)

The entire programme will be run into semester system. The assessment of theory and practical activities must be structured with university regulations. Tools and techniques for assessment will be as per CCE format.

Recommendations for empowering the future generation of teacher education as per NEP2020

- There is need for a separate teacher education university at the state level for framing appropriate policies to strengthen both pre-service and in-service teacher education programmes for govt. aided and unaided schools and colleges of teacher education.
- In order to encourage Integrated Teacher Education Programme (ITEP), teacher education policy at the state level should not permit any new teacher education institutions till 2030.
- Higher Education Department and School Education Department must come together to frame Curriculum Framework for Teacher education.
- For quality education in the schools, accountability of teachers and teacher educators has to be considered as most important factor.

- Minimum qualification for teacher educators at multi-disciplinary institutions has to be specified.
- The teacher education institutions have to be ear-marked separately for foundational, preparatory, middle and secondary levels.
- There has to be uniform curriculum structure for the entire teacher education programme at different stages.
- The teacher preparation should focus on the development of the physical, emotional, intellectual and spiritual aspects, through communication, interpersonal/social, psychological, organizational /managerial and technological skills for the overall development of a multi skilled teacher, thus enabling him/her to teach at any level.
- Multi-disciplinary skills need to be developed through various activities/events as part of teacher training programme:
 - a. Verbal & non-verbal communication skills
 - **b. Emotional balance and psychological** skills for overall personality development, by creating interest, curiosity, intelligence, confidence, thinking skills.
 - **c.** Social/soft skills like cooperation, coordination, collaboration, sharing, caring and social responsibilities.
 - **d. Technical skills** like problem solving, troubleshooting, discovery techniques and using of innovative and creative ideas through technological knowledge
 - **e. Managerial skills** like human and material resource management, time management, space management etc.
 - f. Biological skills like physical fitness and mental Health

Reflections

Existing Teacher Education programme is interdisciplinary in nature that needs to be transformed into multidisciplinary by strengthening the curriculum, pedagogy, attitude and skills. It is the responsibility of the society to produce excellent teachers. It is our sacred duty that we get best of best teachers through Teacher Education programme. There shouldn't be any compromise with the quality. From all possible angles we must encourage the genius, highly motivated, fully spirited young men and women to the teaching field.

Conclusion

As per NEP 2020, we need to link the good/ best policies and practices of school education with teacher education for both pre-service and in-service education levels with the combination of Arts + Science subjects, curricular, co-curricular and extra-curricular activities

for 4 different levels/stages (foundational, preparatory, middle and secondary) to develop academic and non-academic skills in teacher aspirants. Subject wise networking of teacher educators has to be created for exchange of ideas for innovative practices.

With all the above aspects, teacher training has to prepare a teacher with thorough content knowledge, with pedagogy and resources along with the evaluation process to achieve expected learning outcomes from the learners. Teachers are the guiding stars and lighthouses for the student community. They must be regarded as Gurus and Acharyas. Needless to mention, teachers also need to grow to the level that they command respect from all sections of society. There is an urgent need to improve the quality of teachers in order to achieve this goal. It is a vital point to discuss how far we have achieved success in rural areas, in the field of primary and middle education. Though the appointment of teachers in government schools are done on the basis of marks obtained in TET, the success rate is not very encouraging.

From this point of view, selecting the right candidates for teaching is critical and this should be done solely on the basis of passion and interest in the field, rather than merely filling the open slots. Otherwise, all the efforts of NEP - 2020 would be futile.

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23. NEP 2020 and Game Based Learning (GBL)

Dr. Heena D. Wadhwani

Associate Professor, Seva Sadan's College of Education, Ulhasnagar.

Abstract

A modern education system uses technology to impart education. The learning approach is a way more global and is gaining pace nowadays. Modern teaching aids are important and most preferred in the technological age. The growing usage of digital games and applied sciences into learning environments has affected both the teaching of educators and the learning of students. The National Education Policy (NEP), 2020 focuses on the interplay of education and technology. NEP 2020 has set out laying standards to encourage the development of digital content, eventually fostering the betterment of the teaching-learning process. Learners acquire knowledge in the best manner when they are exposed to mediums enlightening and enriching their knowledge sharing process. Game Based Learning is an approach wherein students explore games through a learning context that is designed by the facilitators.

This paper highlights the policy perspectives, meaning, need and benefits of Game Based Learning along with teacher's role.

Key words NEP 2020, GBL, Gamification, Benefits of GBL, Teacher's Role **Introduction**

A modern education system uses technology to impart education. The learning approach is a way more global and is gaining pace nowadays. Modern teaching aids are important and most preferred in the technological age. The growing usage of digital games and applied sciences into learning environments has affected both the teaching of educators and the learning of students.

The National Education Policy (NEP) 2020 lays a great emphasis on bringing remarkable transformations in India's education system so as to ensure the availability and access of universal high-quality education to everyone.

Similarly, NEP states that, learning should be Holistic, Integrated, Enjoyable, and Engaging rather than being boring. The overall impetus of the reforms in curriculum and pedagogy are to ensure that learners are actively and joyfully engaged in the learning process.

Children's abilities can be nurtured in an effective manner if the process of learning is made enjoyable. We all are aware that toys and games attract and fascinate everyone, especially children, and also boost the development of various skills unknowingly.

Game Based Learning: Policy Perspective

The National Education Policy (NEP), 2020 focuses on the interplay of education and technology. NEP 2020 has set out laying standards to encourage the development of digital content, eventually fostering the betterment of the teaching-learning process. Learners acquire knowledge in the best manner when they are exposed to mediums enlightening and enriching their knowledge sharing process. Game Based Learning is an approach wherein students explore games through a learning context that is designed by the facilitators.

1. Games for Computational Thinking

NEP 2020 states that Mathematics and computational thinking will be given increased emphasis throughout the school years starting with the foundational stage through a variety of innovative methods, including the regular use of puzzles and games that make mathematical thinking more enjoyable and engaging.

The policy highlights using games in teaching learning helps the students to use all sense organs, develops competitive mode. Even during Covid 19 pandemic the teachers and students are aware about digital modes, games like car racing, animals, birds and puzzles.

2. Content creation, digital repository and dissemination:

All the teachers and experts in the field of education should be co-creators of the digital games. A digital repository of the content including creation of course work, learning Games and Simulations, Augmented Reality and Virtual Reality will be developed, with a clear public system for ratings by users on effectiveness and quality.

For fun based learning student -appropriate tools like apps, gamification of Indian art and culture, in multiple languages, with clear operating instructions will also be created. A reliable backup mechanism for disseminating e-content to students will be provided.

Meaning of Game based learning (GBL)

Game-based learning is a teaching method that uses the power of games to define and support learning outcomes. A GBL environment achieves this through educational games that have elements such as engagement, immediate rewards and healthy competition—so that while students play, they stay motivated to learn.

A framework of learning wherein the students engage in different activities to learn a particular subject is called game-based learning. The key concept of the framework relies on the same elements as the game-like activities such as redoing something if failed once; continuing till the target is fulfilled. Hence the students are to follow similar tenets of rules, objectives, conflict resolution, and healthy competition.

Game based learning describes an approach to teaching, where students explore relevant aspects of games in a learning context designed by teachers. Teachers and students collaborate in order to add depth and perspective to the experience of playing the game. Good game based learning applications can draw us into virtual environments that look and feel familiar and relevant.

Game-Based Learning (GBL) can be successfully used to improve both learning and teaching. It simply means including games in your instruction. One of the greatest challenges for educator is with-success teaching large groups of students, all of whom having totally different personalities, different capabilities and different learning preferences. With high expectations of everything digital, students wish variety of activities, rewards, surprises and humour to stay up their interest in learning.

Game-based learning has shifted focus from learning with lectures and written tasks to learning with games and it has become an indispensable part of modern education.

Due to Covid 19 pandemic and online instructions by using various learning platforms there has been paradigm shift in the traditional game based learning to Digital game based learning.

Digital Game means any game played using an electronic device, either online or standalone. The result of the interaction builds interactive and virtual environment that enables the players to engage with the content.

Digital games provide a virtual environment where students are not limited by physical space or hands on access to learning materials. Digital Game based learning is an instructional method that incorporates educational content or learning principles into digital games by engaging learners.

Need of Game based Learning

The core concept behind any medium of teaching is a learning process through repetition, failure and the accomplishment of goals. Game-based applies these core concepts to enhance learning.

- Students work toward a goal, choosing actions and experiencing the consequences of those actions. They actively learn and practice the right way to do things in the most entertaining way possible. This results in active learning instead of passive learning which keeps us highly engaged in practicing behaviours and thought processes that we can easily transfer from the simulated environment to real life.
- Game-based learning makes learning and instruction fun and immersive.
- Games give experiences meaning, they provide a set of boundaries within a safe environment, to explore, think, and try things out. They provide the motivation to succeed and reduce the sting of failure.
- Game-Based Learning plays important role in teaching by making students to collaborate, communicate, interact and work in teams.
- One of the key aspects of game-based learning is that each student receives immediate feedback on their performance, with suggestions on how they might improve.

Game based learning and Gamification

GBL: Game-based learning is training that uses game elements to teach a specific skill or achieve a specific learning outcome. It takes your core content and objectives and makes it fun.

Gamification: Gamification is the application of game mechanics in a non-game context to promote desired behaviour and drive learning outcomes. Gamification is the integration of game elements like point systems, leader boards, badges, or other elements related to games into "conventional" learning activities in order to increase engagement and motivation.

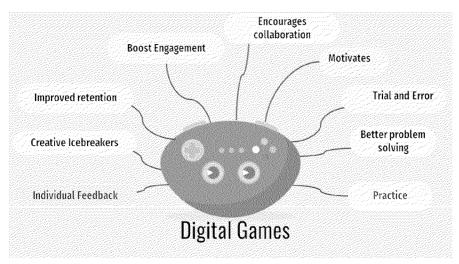
Gamification in online learning platforms has the potential to alter education in India. It instils lifelong skills such as problem-solving, critical thinking, social awareness, cooperation, and collaboration. Games also motivate individuals, increase interest in certain subjects, reduce the rate of attrition among learners, improve grades, and enhance their cognitive abilities. Gamification and Game-Based Learning both promote engagement and sustained motivation in learning.

Benefits of Game Based learning (digital games)

Game-based learning has the ability to instill significant motivation in students and offer a practical learning experience to enhance effective learning.

- It helps to transform dull, dry classroom learning into an enjoyable, engaging experience that motivates students to participate in an absorbing learning process.
- The knowledge and skills acquired through game-based learning are retained longer than information from other learning methods.





(Image is taken from NCERT online training session held in the month of June 22)

- It is entertaining, as students love games, therefore it will be engaging and through simulation students will be exposed to near real life situation.
- Through psychomotor activities (practice) learner will be able to remember what he has learnt for long duration without cramming or mugging.
- Trial and error method will help learners to achieve specific learning outcome.
- Individual feedback will ease of the evaluation of individual learner by the teacher since digital roster will automatically provide feedback.
- Shy and introvert students can do wonders and GBL will prove a great icebreaker for them.
- It encourages collaboration among learners.
- In fact the new methodology will teach the four 21st century skills like Cooperation, Collaboration, Critical thinking and Problem solving.

Some of the Online platforms and Gamified apps include EdApp, Kahoot, Gimkit, Quizlet, Edufiq, Khan academy, Udemy, Tiny Cards by Duolingo, QuizUp and Duolingo.

New Approach prepared by NCERT (NISHTHA 2.0)

Toy Based Pedagogy is a teaching-learning approach which is based on learning 'through toys and games' Integration of toys and games for learning implies that the 'toys' and 'games' are at the centre of the curriculum, which helps in simplifying and clarifying new concepts.

Teacher's Role

The teacher as gaming tutor guides and supports students gaming experience, similar to a game master. The teacher guides students with an advanced level of game literacy and gaming experience.

Care to be taken while designing Games

- In order to make learning effective, game-based learning requires games that are well designed and have well implemented learning tasks.
- A well-designed educational game could combine the learning objectives of the
 educational system with the fun, finished product of a commercial game and custombuilt games. Games designed specifically for the purpose of educating children can
 motivate self-learning and problem-solving skills to a great extent.
- There are three approaches for embedding games and activities into the teaching and learning process:
- The first approach is based on learners designing and creating their own games according to their requirements;
- The second focuses on teachers, trainers or developers designing educational games from scratch according to learners' knowledge level; and
- The third one is to integrate commercial prefabricated games into the classroom activities for effective learning.

Conclusion

Game-based learning is thus not a showy alternative; it is an effective way of learning that makes the curriculum more potent. For the Gen 'Z', most of whom are more than fluent in technology, games and gamification shed light on a way of education that is new, attractive and most importantly one that holds a promising future.

Ed-tech and online learning are now mentioned as key pillars of education in India. The New Education Policy (NEP) 2020 marks a fundamental shift and advocates replacing rote learning with innovative and experiential methods, such as gamification and apps that can deliver high-quality education.

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24. Online Education vs Offline Education: A Post Pandemic Study

Dr. Reshma Rodrigues

Assistant Professor, St Teresa's Institute of Education, Mumbai.

Abstract

The Covid 19 pandemic was an unprecedented situation. For nearly two years, education shifted to the online mode. Post pandemic schools slowly went back to the offline mode. The two years of online learning however did have an impact on the students. Some schools leveraged the potential of technology and augmented face to face learning with digital platforms. NEP 2020 recommends use of digital platforms for learning. Teachers have to find the right blend of offline and online learning strategies. For this one needs to find the influence that the internet has had on students. This paper is based on a study that attempts to find out how internet and media usage have impacted students.

Key Words: Online Learning, Post Pandemic, Impact of Internet and other media **Introduction**

The education system has recently been rocked by the Covid 19 pandemic, an unparalleled health crisis, that has shattered its base. Given the current state of affairs, it's critical to acquire a more detailed knowledge of students' online learning experiences during the COVID-19 pandemic and its impact post pandemic. Practically short-term, the school systems mixed to progress totally to online distance learning with a brief period to design and no lucidity of what will occur straight away. Educators and associates who are utilized to intuitive courses have started to modify the educational program and their learning strategies to adjust to the new remote circumstances. The spiraling emergency has overpowered each part of the educating scene. After being closed for over two years owing to the outbreak of the COVID-19 virus, schools are slowly returning. While most kids are pleased to be back in school and happy to be able to engage with their friends, classmates, and professors in person rather than through a screen, the transition may be difficult. The pandemic caused a significant shift in the learning spectrum, as well as a shift in school systems from pre- pandemic eras. The present research is conducted to understand the impact and dependency of students on the internet and other media.

Need for the Study

According to a UNICEF survey, 14% of young Indians were depressed or sad during COVID but are still afraid to discuss it. The same has been discovered among students, with the majority of them finding the transition phase difficult and refraining from engaging in various class activities and preferring to remain to themselves owing to a lack of personal connection. Things will not just return to normal once the return to in-person schooling and learning takes effect. Many young students, especially those belonging to the lower academic levels, developed tech skills but at the same time also got over- dependent on these internet resources. The recommencement of offline classes made it difficult for the students to cope with the prepandemic learning style of the education system. It is therefore of utmost importance to study the level of impact of such factors affecting their studies and formulate strategies that channel those factors into the right direction wherein the amalgamation of both these systems, online or offline, can benefit their learning experience no matter what. The impact of the Internet and digital media can be very strong on students especially on children. Through such studies, there can be many ways in which students themselves, teachers as well as parents can strategize and come up with innovative methods to help the negative impacts turn into something creative that benefits theentire learning experience of the students. Many adults are unaware of various ways in which the internet and digital sources are affecting the children. This study will not only be helpful at a personal level but the school can also improvise based on the needs of the students. It will help them make better decisions that cater to the needs of all children.

Statement of the Problem

A study on the Impact of Internet and Other Media on the students belonging to Grade 5 of the SSC Board.

Objectives of the Study

- To study the impact of Internet and other media on the female students belonging to Grade 5 of the SSC Board.
- To study the impact of Internet and other media on the male students belonging to Grade 5 of the SSC Board.
- To study the Impact of Internet and other media on all students belonging to Grade 5 of the SSC Board.

Operational definition

The impact of the Internet and other digital media on the students may be diverse. Some of the aspects are as follows:

Interest

- Understanding and Retention
- Social Life
- Exam Performance
- Dependency on online tools and apps

Design of the Study

For the present study the researcher has used the Descriptive Research Design wherein the survey method is utilized to examine the impacts of Internet and Other Digital Media on the students of secondary school belonging to the Maharashtra State Board (SSC). 52 secondary students of SSC Board were surveyed, out of which 29 were boys and 23 were girls. For the present research, the researcher has used four-point rating scale that consisted of 15 items to extract information on the impact of the internet and other media on the students. The researcher converted the obtained data to percentage form so that it could be analysed.

Data Analysis

Sr.	Statement	Area			Figures in Percentage			
No					SD	D	A	SA
1	I am not able to complete	Dependency	on	Boys	6.89	17.24	41.38	34.48
	my work without the	online tools	and					
	internet.	apps		Girls	13.04	47.83	30.43	8.69
				Overall	9.62	30.77	36.54	23.08
2	I am not able to answer well	Exam		Boys	24.14	34.48	24.14	17.24
	in offline classes.	Performance		Girls	21.74	47.83	30.43	0
				Overall	23.08	40.38	26.92	9.62
3	I feel bored due to the	Interest		Boys	3.45	48.28	34.48	13.79
	chalkboard used in the			Girls	21.74	65.22	8.69	4.35
	classroom.			Overall	11.54	55.77	23.08	9.62
4	I miss the videos shown in	Interest		Boys	6.89	37.93	44.83	10.34
	online classes.			Girls	17.39	13.04	56.52	13.04
				Overall	11.54	26.92	50	11.54
5	I do not like attending	Interest		Boys	10.34	34.48	41.38	13.79
	offline lectures compared to			Girls	34.78	43.48	21.74	0
	the pre- recorded lectures.			Overall	21.15	38.46	32.69	7.69
6	I am not able to perform	Exam		Boys	13.79	41.38	34.48	10.34
	well in offline exams.	Performance		Girls	13.04	47.83	21.73	17.39
				Overall	13.46	44.23	28.85	13.46
7	I feel bored when the	Interest		Boys	13.79	34.48	37.93	13.79
	teacher explains using only			Girls	17.39	39.13	39.13	4.35
	the chalkboard.			Overall	15.38	36.54	38.46	9.62

8	I find it difficult to focus	Understanding	Boys	17.24	37.93	34.48	10.34
	just on the lesson in an	and Retention	Girls	30.43	47.83	17.39	4.35
	offline class.		Overall	23.08	42.31	26.92	7.69
9	I need pictures and videos in	Understanding	Boys	10.34	24.14	31.03	34.48
	offline lectures for better	and Retention	Girls	13.04	56.52	21.74	8.69
	understanding.		Overall	11.54	38.46	26.92	23.08
10	I do not understand a topic	Dependency on	Boys	17.24	20.69	24.14	37.93
	without online games.	online tools and	Girls	30.43	47.83	13.04	8.69
		apps	Overall	23.08	32.69	19.23	25
11	I do not feel like studying	Dependency on	Boys	20.69	17.24	34.48	27.59
	from the textbooks.	online tools and	Girls	34.78	30.43	21.74	13.04
		apps	Overall	26.92	23.08	28.85	21.15
12	I do not like to write notes,	Dependency on	Boys	6.89	27.59	34.48	31.03
	a pdf document is better.	online tools and	Girls	21.74	52.17	17.39	8.69
		apps	Overall	13.46	38.46	26.92	21.15
13	Google Classroom is more	Social Life	Boys	10.34	17.24	51.72	20.69
	systematic than an actual		Girls	4.35	39.13	34.78	21.74
	classroom		Overall	7.69	26.92	44.23	21.15
14	I find recorded lectures	Understanding	Boys	17.24	27.59	27.59	27.59
	much helpful in	and Retention	Girls	13.04	39.13	21.74	26.09
	remembering concepts.		Overall	15.38	32.69	25	26.92
15	It was better to connect with	Social Life	Boys	6.89	24.14	41.38	27.59
	classmates over social and		Girls	8.69	21.74	47.83	21.74
	digital platforms than in a		Overall	7.69	23.08	44.23	25
	classroom.						

Findings of the study

1. Interest

It was found that for boys' digital platform for learning had become the reason for decreased interest in offline classes. But girls were found to be impacted to a lesser degree with respect to the same. Overall, it was found that students are easily bored now due to traditional methods of teaching as a result of their exposure to various other technologies during the pandemic.

2. Understanding and Retention

Girls were found to be keener on use of pictures, videos and other digital media for better understanding and retention. Whereas boys were less impacted by the same. Overall, most of the students' favoured the online techniques.

3. Social Life

Boys and girls showed no difference when it comes to their preference with respect to online vs offline classrooms for social interaction. Thus, overall, it was noticed that Digital Platforms have impacted students' social skills as they still prefer online classes for social interaction.

4. Exam Performance

Girls population showed less impact of online learning in comparison to their male classmates. Overall, it was found that many students faced problems while giving offline exams post pandemic.

5. Dependency on online tools and apps

Male students were found out to be more dependent on digital media than female students. Overall, it was observed that, students have become dependent on the online tools and apps which has affected their study habits in particular.

Suggestions

- Amalgamation of technology with traditional methods of teaching will ensure that students are not bored and enjoy learning in a classroom.
- Various games and activities can be given as homework or assignments. Activities can also be included while teaching and not limiting only to videos and pictures.
- Using these new technologies in the classrooms will ensure maximum participation of students.
- Provisions of recording challenging topics and sharing that as a learning resource can be helpful for those who need extra guidance.
- Examinations can be taken using various technologies even in offline mode so that the students are not scared or anxious, especially in the current scenario

Conclusion

The study helped in discovering both, the negative as well as the positive impacts of the Internet and other digital media on the students. The change in the educational mode and format benefitted in the continuation of the learning and teaching process. These impacts of technology on students can be further studied and used to create better learning experiences for the students. In this study, a lot of mixed opinions were received from the students pertaining to their online and offline learning experiences. However, it was seen that the students were impacted by the online techniques used and the dependency on the internet was seen to be increased even for doing simplest work thus affecting their performances in offline examination. It also hindered

their creativity and concentration. Many students felt that they were able to maintain their social life better and felt more confident through the digital platforms. Some students believed they were more confident answering in the online mode and could participate more through the screen. It is, therefore, essential to understand the impacts and bringin the changes requisite for achieving the goals of effective education. As teachers, since we are constantly in touch with our students, it is one of the responsibilities to conduct studies that can identify the problems faced by not only the students but also facilitators and educators. Such studies need to be carried out on regular basis, especially post pandemic as we are still striving to get back on track and bring life to normal.

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25. NEP 2020 and Inclusion

Dr. Rajkumari J. Punjabi

Assistant Professor, Seva Sadan's College of Education, Ulhasnagar Thana, Maharashtra.

Abstract

Education is a national agenda and is the catalytic tool that can alter the future of our children and youth. It will assist our children and youth to meet the present and future challenges. Clear revolutionary education policy is crucial for a country as education is a means of economic and social change leading to progress. Diverse education systems are implemented by countries taking into account the tradition and culture to make it effective.

The National Educational Policy (NEP), 2020 tries to address the growing disparity and inequality hounding country's education system today. Education is the means for achieving social justice and equality. Inclusive and equitable education an essential goal, is important in achieving an inclusive and equitable society in which every citizen has the chance to dream, flourish, and contribute to the nation. This paper highlights Recommendations by NEP for Education of Children with Special Needs.

Key words Children with Special Needs, National Educational Policy 2020, Inclusive Education.

Introduction

Education is an important aspect of the national agenda and is the catalytic tool that can alter the future of our children and youth. It will assist our children and youth to meet the present and future challenges. Clear revolutionary education policy is crucial for a country as education is a means of economic and social change leading to progress. Diverse education systems are implemented by countries taking into account the tradition and culture to make it effective.

India, has always tried to bring educational reforms for enhancement of quality in the Indian education sector, and introduced a comprehensive National Education Policy 2020 which has brought revolutionary changes in all Dimensions of Education. The National Education Policy 2020 (NEP 2020), drafts the vision of India's New Education System. The National Education Policy 2020 aims to transform India's education system and visualize an India centred education system that contributes directly to transforming our nation sustainably into an

equitable and vibrant knowledge society. It aims to achieve to achieve it by providing high quality education to all.

The National Educational Policy (NEP), 2020 tries to deal with the growing disparity and inequality prevailing in country's education system today. Education is the means for achieving social justice and equality. Inclusive and equitable education an essential goal is important in achieving an inclusive and equitable society in which every citizen has the chance to dream, flourish, and contribute to the nation. The education system must aim that no child loses any opportunity to learn and excel because of any circumstances. The policy recognizes children with special needs and believes in incorporating them into the mainstream education systems. It broadly aligns with the objectives of The Rights of Persons with Disabilities (RPWD) Act 2016.

Education of Children with Special Needs

Nature and nurture have a significant role to play in the growth and development of human beings. Deviations from the average of physical and mental ability of human beings beyond limits resulting in substantial and considerable difficulties in performing a function or in social adjustment would be perceived as disability.

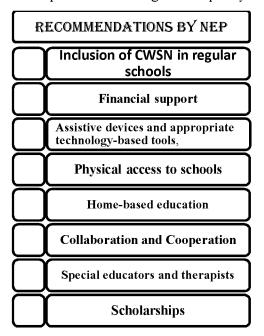
Children with Special Needs (CWSN) are those who have some type of disability and require exceptional care and extra help. The special needs of these children depend on the nature of their disability. CWSN can be classified into four major categories: Physical, Sensory, Developmental and Behavioural or Emotional.

Inclusive Education is when all students, regardless of any challenges they may have, are placed in age-appropriate general education classes that are in their own neighbourhood schools to receive high-quality instruction, interventions, and supports that enable them to meet success in the core curriculum. Inclusion in education refers to all students being able to access and gain equal opportunities to education and learning.

Recommendations by NEP for Education of Children with Special Needs

Every child has a right to education, including children with disabilities. The UN Convention on the Rights of Persons with Disabilities (CRPD) recognizes the right to inclusive education for all persons with disabilities. The NEP 2020 Policy recognises the importance of providing CWSN the same opportunities of obtaining quality education as any other child. The RTE Act ensures CWSN free and compulsory education either until the completion of the

elementary stage of school education or till the age of 18 years. Below are recommendations by NEP to ensure that every CWSN is provided meaningful and quality education.



Inclusion of Children with Special Needs in regular schools

Education programmes for CWSN will continue to be mainstreaming them in neighbourhood schools and supporting their participation in the schooling process. Collaboration, Coordinated planning and communication between "general" and "special needs" staff will help in Inclusion of children with special needs in regular schools.

Financial support for educating Children with Special Needs

Sufficient funding needs to be provided so that schools will be able to develop programs for students based on students need instead of the availability of funding. Avenues for obtaining financial support will be provided to schools for integration of CWSN, and establishment of resource centres for learners with severe or multiple disabilities. These centres should assist parents in home-schooling and in skilling these learners.

Physical access to schools for children with special needs

Barrier-free structures, ramps, handrails, disabled friendly toilets, and suitable transportation for CWSN to comfortably attend schools will be provided in schools for CWSN. In the long-term, the schools will be able to apply for funding for providing these facilities.

Assistive, Adaptive devices and appropriate technology-based tools

Adequate assistive devices, appropriate technology and language-appropriate teaching-learning materials will be made accessible to support CWSN integrate more easily into classrooms and interact with teachers and their peers. The other components of interventions will consist of functional and formal assessment, suitable educational placement, and preparation of Individualised Educational Plans (IEP). Well-constructed plans (IEP) will help to identify specific accommodations, modifications, and goals for each student.

Some Examples of assistive and adaptive devices are Audio players and recorders, FM listening system, Graphic organisers, talking calculators, Text-To-Speech Assistive Tools, Hearing Aids, and Math Talk etc.

Provisions for home-based education

Children with severe and profound disabilities may not be able to go to schools. To complete their school education, through NIOS orientation of parents and distribution of learning materials enable parents to vigorously support their children's learning needs will be given importance.

Collaboration and Cooperation: Inclusive education programs of CWSN in collaboration with resource centres, NGOs and voluntary organisations will be conducted. There will be involvement of Local resource centres and NGOs in the planning of inclusive education, creating awareness, community mobilisation, early detection, identification and assessment of CWSN.

Open schooling for hearing-impaired students

NIOS will develop high quality modules to teach Indian Sign Language, and other basic subjects using ISL.

Special educators and therapists with cross-disability training

Appointment of an adequate number of special educators with appropriate training will help in supporting Regular teachers in catering to the needs of all learners in school. Resource centres and special educators at the school will support the rehabilitation and educational needs of learners with severe or multiple disabilities, and will also assist parents in achieving high quality home-schooling and skilling students.

Scholarships for differently-abled students

Participation of differently-abled children in school education needs to be enhanced, and scholarships for talented and meritorious students will be offered especially at the secondary stage of education, to facilitate their entry into higher education.

Teacher Education and Inclusion of CWSN

Existing Two Years Choice Based Credit System B.Ed syllabus of University of Mumbai includes courses like CC3 Learning and Teaching and Interdisciplinary course, IC4 Creating an Inclusive School which helps them in acquiring knowledge, awareness, skills and developing positive attitude towards CWSN. The following topics in these courses are geared towards inclusion.

CC3 Learning and Teaching

Teaching for All:

- Educational needs of differently abled learners: Characteristics & role of education (strategies) in case of:
- Learners with learning disabilities
- Learners with Hyperactivity & Attention Disorders
- Gifted Learners
- Differentiated Instruction: Concept, Characteristics / Key Features & Strategies

Interdisciplinary Course IC4 Creating an Inclusive School

- Key concepts: diversity, disability and inclusion;
- Models of inclusion.
- Understand the diversities of abilities, classification and characteristics of students.
- National and international framework with reference to disability and inclusion.
- Curriculum and assessment adaptations for inclusive classrooms.
- Role of general teachers, resource teachers and NGOs Different activities, assignments, visits to special schools help to broaden their knowledge, awareness and sensitisation towards CWSN.

Reflections regarding Inclusion according to NEP 2020

Present syllabus already has incorporated most of the points but special focus needs to be given to Provisions for Home-based Education for CWSN with (profound and severe) who are not able to attend schools. Availability of Open Schooling for hearing-impaired students and

development of high quality modules to teach ISL by NIOS will enable to achieve objective to complete school education and actively support children's learning needs. Special educators and therapists with cross-disability training will help them to cater to needs of different kinds of CWSN and help in skilling them in different areas.

Conclusion

The NEP highlights the teacher's contribution, their sacrifice and efforts to uphold the dignity, respect and honour of teaching profession. Teacher Educators must be proactive in understanding in detail the ethos, the aims, objectives and the motto of the NEP and upskill themselves with rigorous Continuous Professional Development programs, trainings, participation in seminars, workshops and conferences at various levels. Implementation of NEP will require giving up the age-old practices of cramming and rote learning and adopting Constructivist pedagogies to go beyond textbooks with the aim to achieve learning outcomes and not just syllabus completion.

The awareness and knowledge of how to teach children with special needs should be an vital part of all teacher education programmes. A well-planned implementation of the policy along with immediate reforms is the need of the time. It can help children with special needs to get increased access to quality education, employment, health and other services, and develop a better awareness of their rights, thereby improving their quality of life.

"Our job is to teach the kids we have. Not the ones we used to have. Not the ones we would like to have. The ones we have right now....

All of them."

Inclusion... Yours, Mine, Ours

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26. A New and Forward Looking Vision for India's Higher Education System

Mrunali Rupesh Pansare

Assistant Professor, Gurukrupa College of Education and Research, Kalyan (W).

Abstract

Higher Education plays an extremely important role in promoting human as well as societal wellbeing and in developing India as envisioned in its Constitution - a democratic, just, socially conscious, cultured, and humane nation upholding liberty, equality, fraternity, and justice for all. Higher Education significantly contributes towards sustainable livelihoods and economic development of the nation. As India moves towards becoming a knowledge economy and society, more and younger Indians are likely to aspire for Higher Education. The paper examines India's new and forward looking vision for Higher Education.

Keywords Higher Education, National Education Policy, ABCD analysis, Predicted implications

Introduction

Higher Education is a critical contributor to sustainable livelihoods and economic development of the nation. Higher Education also plays a large and equally important role in improving human wellbeing, and developing India as envisioned in the Constitution - a democratic, just, socially conscious, self-aware, cultured, and humane nation, with liberty, equality, fraternal spirit, and justice for all. Higher Education aims to serve as a hub for developing ideas and innovations that enlighten individuals and help propel the country forward socially, culturally, artistically, scientifically, technologically, and economically. In particular, the higher education system must aim to form the hub for the next industrial revolution.

The National Education Policy 2020 envisions a complete overhaul and re-energising of the Higher Education system to overcome challenges and thereby deliver high-quality higher education, with equity and inclusion.

The policy's vision includes the following key changes to the current system

- Moving towards a higher educational system consisting of large, multidisciplinary universities and colleges, with at least one in or near every district, and with more HEIs across India that offer medium of instruction or programmes in local/Indian language
- Moving towards a more multidisciplinary undergraduate education
- Moving towards faculty and institutional autonomy
- Revamping curriculum, pedagogy, assessment, and student support for enhanced student experiences
- Reaffirming the integrity of faculty and institutional leadership positions through merit appointments and career progression based on teaching, research, and service
- Establishment of a National Research Foundation to fund outstanding peer-reviewed research and to actively seed research in universities and colleges
- Governance of HEIs by high qualified independent boards having academic and administrative autonomy
- "Light but tight" regulation by a single regulator for higher education increased access, equity, and inclusion through a range of measures, including greater opportunities for outstanding public education;
- Scholarships by private/philanthropic universities for disadvantaged and underprivileged students; online education, and Open Distance Learning (ODL); and all infrastructure and learning materials accessible and available to learners with disabilities

Few of the above key changes are discussed below

Moving towards a higher educational system consisting of large, multidisciplinary universities and colleges

The main thrust of this policy regarding Higher Education is the ending of the fragmentation of Higher Education by moving Higher Education into large multidisciplinary universities and colleges. It is envisaged that each of these institutions will have upwards of 5,000 or more students. If Higher Education is moved entirely into large multidisciplinary HEIs, it will address many of the problems that Higher Education faces today.

It will give students vibrant communities of scholars and peers in which they can learn. It will help to break down harmful silos between disciplines. Students will become well-rounded

and develop optimally both sides of their brains (artistic/creative and analytic), and this will bring flexibility and individuality into their learning programmes. It will help develop active research communities across disciplines - particularly cross disciplinary research, which will be key for the innovations of the 21st century. It will greatly improve (by an order of magnitude) the efficiency of use of resources and of resource sharing, both material and human, across Higher Education.

Moving towards a more liberal undergraduate education

This goes hand-in- hand with the first policy initiative. The needs of the 21st century require that liberal broad-based multidisciplinary education become the basis for all higher education. This will help to develop well-rounded individuals who possess critical 21st century capacities in fields across the arts, humanities, sciences, social sciences, and professional, technical, and vocational crafts, an ethic of social engagement, and rigorous specialization in a chosen field or fields. Such a liberal education would be, in the long run, the approach across all undergraduate programmes, including those in professional, technical, and vocational disciplines. Imaginative and flexible curricular structures will enable creative combinations of disciplines for students to study, and would offer multiple useful entries and exit points, thus demolishing currently prevalent rigid boundaries and creating new possibilities for lifelong learning.

Moving towards faculty and institutional autonomy

Through faculty autonomy, faculty will be enabled and motivated to innovate in their teaching and pedagogical approaches, student assessment, community service initiatives, and research, and share best practices and ideas with each other in university wide and larger forums in order to continually improve. Through institutional academic and administrative autonomy, institutions will be enabled to start and run novel and cutting-edge programmes, develop innovative curricula, govern more locally given local knowledge of circumstances and requirements, and set up optimal people and career management systems.

Curriculum, pedagogy, assessment, and student support will be revamped

Curriculum, pedagogy, and assessment will move away from solely rote learning of facts and mechanical procedures. The examination system in higher education will be recast; evaluation will be guided by curricular objectives and overarching educational goals. Faculty

will be supported to achieve these transformations. Quality higher education in Indian languages will be offered across fields.

Reaffirming the integrity of faculty positions and institutional leadership through merit based appointments and career management

NEP 2020 recommends that all faculty positions will be filled, based on rigorous recruitment evaluations, and the practice of contract employment will be stopped. Appointment of faculty, their tenures and promotions, and compensation increases will be on the basis of merit taking into account teaching, research, and service - the assessment of which will be carried out through a rigorous process of evaluation by students, institutional leaders, and committees consisting of peers, as defined clearly by the HEI governing boards institutional leadership.

Establishment of a National Research Foundation

A National Research Foundation (NRF) will be established to grant competitive funding for outstanding research proposals across all disciplines, as determined by peer review and success of proposals. Most importantly, it will aim to seed, grow, and facilitate research at academic institutions where research is currently in a nascent stage, through systems of mentoring by active research scholars, who may have retired or be near retirement at top research institutions.

"Light but tight" regulation

The regulatory system will be transformed to have only one regulator for all higher education, including professional education. Accreditation on basic parameters (such as financial probity) will form the basis for all regulation. The various distinct functions of funding, standard setting, accreditation, and regulation will be separated and will be conducted by independent bodies, eliminating concentration of power and conflicts of interest. Private and public institutions will be treated on par by the regulatory regime. Commercialization of education will be stopped and philanthropic efforts will be highly encouraged.

Conclusion

The above discussion represents a summary of the vision of National Education Policy for ensuring high quality Higher Education in the 21st century. A periodic improvement in the education system is essential for human development and sustainable progress in society. India has a large youth population which will be the backbone of the working force. These young people will be the driving force for entrepreneurships and innovation. Investment in Higher

Education at this juncture will yield rich dividends in the future. Hence, all efforts need to be made to concentrate on the new and forward looking vision of NEP 2020 and thus leverage India to be a global knowledge super power.

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