



India's New Education Policy 2020 on Engineering Training

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Abstract: For many decades in India there is a need of getting a good education policy as every parent is seeking that education should fulfil all basic skill requirements as per the human potential. Education should be based on interest and provide job opportunities for the survival of life. Education along with technology must be with high-quality content so that every stakeholder can face global challenges. At the time of Covid -19, there is a big change came in the education system and digitalization give a new impact on all Indian societies. The new education policy 2020 came with the proposal of quality education and this also will collect all big bodies of education on one platform. Many people were caught off guard when it was announced that NEP 2020 had been proposed. The drastic changes that were recommended were something that many education experts never expected. Though the policy influences both school and college education, this paper focuses on NEP 2020 and its impact on engineering education. I also outline the salient features of NEP and provide a statistical test based on my analysis of them. Finally, I discuss the implications of these proposals on the existing educational system.

Keywords: New Education Policy, Engineering Training, Digitalization, Chi Square Test ,etc.

Introduction

India's national education strategy, which spans basic school through universities in both rural and urban sections of the country, is designed to standardise education for Indians. In 1948-49 university education commission recommended certain points to improve quality of education these points are aims of education, teaching staff, Standard of teaching, Courses of study, post graduate training and research, professional education, religious education, medium of instruction, examination and student. In 1952-53 the secondary education commission under the chairmanship of Dr. A. Laxman Swami Mudaliar submitted his report on 29th august ,1953 It includes certain defaults in education system like complex curriculum and traditional teaching methods, defective examination system, no practical knowledge, no mutual relationship, improper teacher and student ratio.

In 1964-66 Kothari Commission had submit a report about the Indian education system & defects in the existing education system. The major points of emphasis were aims of the education, methods of teaching, textbook, curriculum, educational structure and standard, physical welfare of student, education of women guidance and counseling, distance education. But no change in education since many years

In 2019, MHRD released a draft on the new education policy, which came after several views and consultation put forward by stake holder in public it aims to promote holistic experiential, critical thinking based and analysis-based learning. It has also talked about revising the syllabus for the first- time significant change in education structure from 10+2+3 system to 5+3+3+4 system.

These are the main points which has been considered in the proposal.

1. The 10+2 board structure has been abandoned.
2. The new school will have a 5+3+3+4 configuration.
3. Preschool through fifth grade; sixth through eighth grade; ninth through eleventh grade; and twelfth through twelfth grade.
4. All degrees will last four years.
5. Available vocational courses from the 5.6th grade forward
6. Students can select their own classes from eighth grade to eleventh grade.
7. Each and every graduate course will have a major and a minor.
8. There will be just one authority in charge of all higher education.
9. AICTE and UGC shall merge.

10. The grading and other procedures are the same for all universities, whether they are public, private, open, deemed, or vocational.
11. A new teacher training board will be established for all types of teachers in the nation, and no state will be able to amend it.
12. Every college receives the same degree of accreditation, and depending on how well it performs, it will be granted autonomy and funding.
13. The government will develop a new basic education programme for parents to use at home with children up to age 3, and for preschoolers ages 3 to 6.
14. Leaving and entering any course more than once.
15. The credit system for graduation gives each student some credits that can be used if they decide to take a break from their studies and return to them later.
16. Exams will be given twice a year, semester by semester, in every school.
17. The syllabus shall be condensed to merely the fundamental understanding of any subject.
18. A stronger emphasis on students' application and practical knowledge
19. For any graduating course, a student who completes only one year will receive a basic certificate; if he or she completes two years, a diploma; and if they complete the entire programme, a degree. Therefore, even if a student's course is on hiatus, their academic year is not squandered.
20. A single authority will oversee all graduating course feeds across all universities, with caps on each course.

Review of Literature

L. Devi and Cheluvvaraju[1.] Analyze the NEP2020 working factor to identify the skills required.it study awareness about the impact of national education policy 2020.the comparative study on the current NEP and NEP 2020 has pointed out the shortcomings of the current NEP which was affecting the growth of the Indian economy and affecting the youth in achieving their goals.

Dr. Rahul Pratap Singh Kaurav et.all [2.] identify the three crucial aspect of the policy, course and students, for the higher education sector. They also discuss about the sentiment analysis, related to NEP2020, the most people consider the policy as a positive and welcoming step.

Dr. Hemlata Verma and Adarsh Kumar [3.] They have provided a theoretical analysis to explain the policy in this and suggested improvements to ensure

a seamless transition from its predecessor as well as its predecessor, increasing its significance.

Ajay Kurien, Dr Sudeep B. Chandramana [4.] 2020's new education strategy and its effects on higher education article is mostly concerned with NEP2020 and how it will affect higher education. The keyelements of NEP have also been briefly discussed, along with how they differ from the current educational system.

STATEMENT OF THE PROBLEM

Universities, colleges, schools, teaching faculty, students, and other stakeholder groups will all face challenges because of the new education policy that will be established. The entire educational ecosystem has to be reshaped in current year based on NEP 2020 ,stack holder may find a difficult to adopt the challenges as they are not aware about the functioning of NEP 2020 stack holder must understand the benefits which are listed with NEP 2020 ,hence the study of the NEP 2020 for the field of engineering training is must so that the teaching community ,students & others related to it can understand the result and efficiently work toward the goal.

OBJECTIVES OF THE STUDY

- Understanding the National Education Policy 2020 and examining how it will affectengineering education.
- To compare the outcome of exiting NEP 2020
- To analyze outlines and salient feature of NEP also their effect on existing education system

RESEARCH METHODOLOGY

Our study is based on NEP 2020 & analysis based onchi square test.

Population

The study includes the stakeholders of our college from Electronics and Communication Engineeringbranch located in Jaipur, Rajasthan

Sample Size

One hundred twenty responses from our college made up the study's sample size.

Method of Data Collection

Data was gathered through a standardized questionnaire that respondents answered, as well as

information from numerous websites and expert opinion.

Sampling Technique

The study's respondents were chosen using a practical sampling technique.

Analysis of Data

Simple percentage analysis has been used to assess the data that was collected. To determine the success of the new education strategy among the teaching faculties and students, the study also analyses data using statistical tests.

HYPOTHESIS

Null hypothesis (H₀): No significant impact of NEP 2020 on stakeholder of engineering training discipline .

Alternative hypothesis (H₁): Significant impact of NEP 2020 on stakeholder of engineering training discipline.

LIMITATION OF THE STUDY

- The study is limited to only branch specific i.e Electronics& Communication.
- There are only 120 participants allowed in the trial.
- Time constraint

RESULTS

TABLE 1.: DEMOGRAPHIC PROFILE OF RESPONDENTS

Particulars	Number
Gender: Male	78
Gender: Female	42
Age:17-19yrs	21
Age:19-21yrs	11
Age:21-23yrs	75
Designation:Professor	2
Designation: Associate Professor	4
Designation: Assistant Professor	5
Designation: Teaching assistant	2

The above table1 describes the profile of the education sector stakeholders who are most impacted by the NEP 2020. The table indicates the study was conducted with 120 samples, including EC students in their second, third, and

fourth years, professors, associate professors, assistant professors, and teaching assistants who are well-educated and have at least three years of teaching experience. As a result, the findings from this study would be helpful for the execution of the NEP 2020.

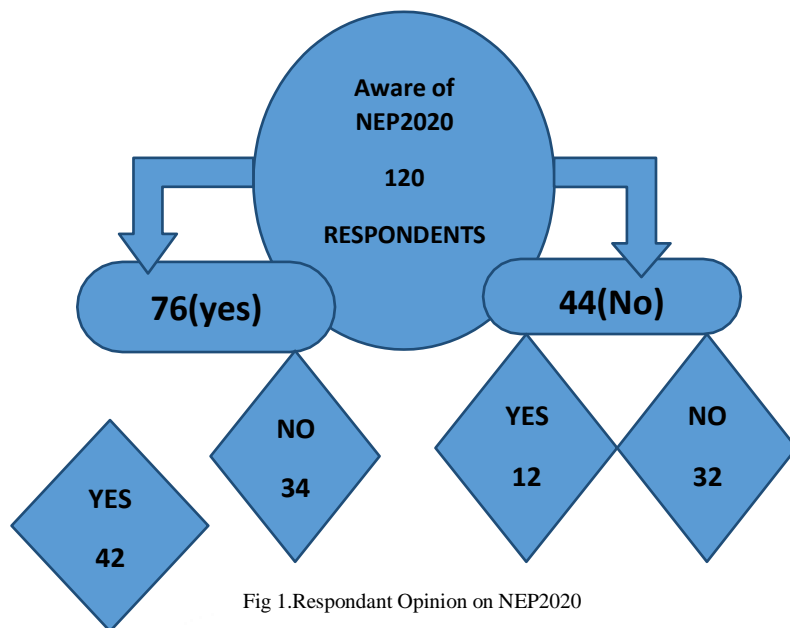


Fig 1. Respondant Opinion on NEP2020

Figure 1 represent the awareness of NEP 2020 and represent stakeholder opinion about working with NEP 2020. Out of 120 respondents, 76 respondents are aware of national education policy 2020, out of which 42 respondents feel that working NEP 2020 is easier than at present. Of these 12 respondents, 44 students who are unaware of NEP 2020 believe working on it might be simpler, while a sum of 32 respondents say NEP 2020 is challenging.

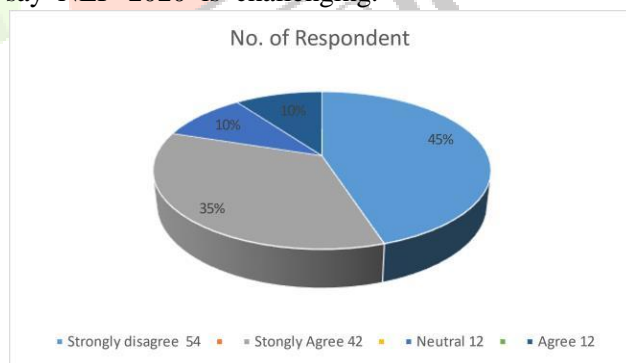


Fig 2. NEP require skill set development in stakeholders.

Figure 2 depicts the stakeholder' perspectives on the requirement for the engineering training discipline's skill set development based on NEP 2020. In line with NEP 2020, 45% of the sample strongly agrees that this talent should be cultivated. Due to ignorance, 10% of the sample's participants offer no view at all. 10% of the sample think we can

effectively implement NEP 2020 with our current skill set.

Table 2 shows the respondent's opinions on the shortcomings of the current national education policy this shows that 82 respondents had admitted that the current NEP is not focusing on the critical and innovative thinking. As many as 71 respondents had felt that the NEP is based on innovative course syllabi and evaluation methods. As many as 87 respondents had identified the Collaboration among institutes and sharing of facilities.

As many as 89 respondents are of the opinion that practical and hands-on experience, Experiential learning. As many as 79 stakeholders felt that the NEP is Quality Faculty Selection (without any

relaxation). As many as 76 respondents are of the opinion that the NEP is Autonomy. As many as 82 respondents identified the NEP is Scholarships and free-ships, affordability, encouraging private players to get into education.

The chi square analysis, a non-probability test used to examine the hypothesis that known independent variables will improve, as shown in Table 3 above. NEP 2020 will have a significant impact on the stakeholders in the engineering training discipline, according to a Chi Square analysis. All parties involved should therefore study to increase their understanding of NEP 2020 thus that they can implement it quickly, accurately, and efficiently for the expansion of the Indian economy.

TABLE 2. RESPONDENTS OPINION ON THE DRAWBACKS OF THE CURRENT NEP

Particular	Strongly Disagree	Neutral	Agree	Strongly Agree	Total Sample
Critical and Innovative Thinking	28	10	36	46	120
Innovative course syllabi and evaluation methods	26	23	33	38	120
Collaboration among institutes and sharing of facilities	22	11	42	45	120
Practical and hands-on experience, Experiential learning	20	11	41	48	120
Quality Faculty Selection (without any relaxation)	21	20	36	43	120
Autonomy	15	15	40	36	120
Scholarships and free-ships, affordability, encouraging private players to get into education	28	10	35	47	120

TABLE 3. Statistical Test (Chi Square)

Particular	Observation	Expected	O-E	(O-E) ² /E
NEP 2020 has no criteria of subject for admission in engineering	60	58	2	.068965172
NEP 2020 emphasis on the bridge course if math's and physics not in class 12th	52	58	-6	.620689655
NEP 2020 emphasis on more practical, analytical, and observatory knowledge education instead of spoon-feeding learning.	64	58	6	.620689655
NEP 2020 emphasis on communication skills of the students	66	58	8	1.10344828
NEP 2020 provide the Common aptitude tests	61	58	3	.155172414
NEP 2020 has Flexible entry-exit option	51	58	-7	.844827586
NEP 2020 allows dual degree option	62	58	4	.275862069
	416			3.6892

SUGGESTION

H₀: There is no significant impact of NEP 2020 on stakeholders of engineering training discipline.

H₁: There is significant impact of NEP 2020 on stakeholders of engineering training discipline.

$\alpha = 0.05$

$1 - \alpha = 0.95$

Degree of freedom = 7 - 1 = 6.

Chi square value = 3.6892

Critical value (0.05 df. = 6) = 1.635

Decision: Chi square value is more than critical value (3.6892 > 1.635) hence H₀ is rejected.

In order to determine the abilities required to collaborate with NEP 2020, stakeholders should begin researching the components that make NEP 2020 function. Stakeholders should acquire the essential skills and favourably implement NEP 2020 so that it promotes faster economic growth. Before selecting a course, the student body should assess their skill set because the NEP 2020 promotes outcome-based education.

Students can accomplish their objectives more quickly if they select courses depending on their skill level. The majority of people still don't understand how NEP 2020 works, thus there is a lot of room for research on it.

CONCLUSION

The study improved understanding of the NEP 2020's effects on engineering stakeholders in a more general sense. The inadequacies of the present NEP that were hurting the development in the Indian economy or preventing the youth from attaining their aspirations have been highlighted by the comparison study between the current NEP with NEP 2020. In order to considerably raise the standard of living and promote overall economic growth, NEP 2020 inspires all stakeholders to satisfy industrial demands at the local, national, and international levels.

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