

**Research Article****STATISTICAL REVIEW ON NEW EDUCATION POLICY 2020*****Manjiri Vartak, Omkar Navle, Om Gupta and Parisi Jariwala**

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Abstract

Education is the most significant requirement for an individual to grow and progress. Education plays an important role in achieving full human potential and its up gradation is essential to compete at global level. In India, other than COVID 19, another major change that took place in the year 2020 was the announcement of the New Education Policy 2020. Implementation of NEP 2020 is the major step taken by the Ministry of Human Resource Development Government of India in order fulfil the global education development agenda reflected in the Goal 4 (SDG4) of the 2030 Agenda for Sustainable Development, adopted by India in 2015 - seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. The New Education Policy had some changes which none of us ever saw coming. The Policy has affected schools and colleges on an equal level. The budget for the education sector has increased to 6% of the GDP. It aims that our education system will be at par with modern countries and the future of our children will be bright. Some major changes that the policy consists of, is the change in the structure of school education and also changes in the higher education sector which includes a holistic multidisciplinary education approach. This paper includes seamless ways to increase awareness about the policy and the impact it will create on the education field after its implementation to the people. It also highlights awareness about NEP 2020 among people, some of the salient features of the new policy and analysis how they affect the existing education system. Methodology: Primary data collection from students, teachers, parents. Secondary data through various government records. Data processing through demographic analysis, chi-square, and quantitative analysis.

Keywords: Demographic analysis, Chi-Square, Quantitative analysis.

INTRODUCTION

India's education system is one of the most talked about topics among the people of India. It is always interesting to discuss India's education system since it is a very divisive topic. The New Education Policy 2020 was approved by the union cabinet on 29 July 2020. It is India's new vision for the education sector. It is a major upgrade from India's 2nd education policy which was released in 1986 by Rajiv Gandhi. The NEP aims at increasing the state expenditure on education from 4% to 6% of GDP, which is a major advantage for the education sector. The policy also aims to increase the GER (Gross Enrollment Ratio) from 26.3% in 2018 to 50% by 2035. The New Education Policy provides a holistic approach towards education which includes creative combination of subjects, multiple entry & exits points, research orientated education. The UG course will be of 4 years with multiple exit options and will be rewarded certificates in the period for example Certificate after 1 year, Advanced Diploma after 2 years, Bachelor's Degree after 3 years and Bachelor's with Research after 4 years. An Academic Credit Bank will be formed to store the credit digitally which will help during the final degree. There is also a change regarding the teacher's qualification as the minimum degree qualification for teaching will be a 4-year integrated B.Ed. degree. The NEP includes many more such features and we will statistically analyze some of it in our research paper.

LITERATURE REVIEW

After independence, India faced several difficulties regarding the literature and education sector. By taking the recommendations of the Kothari commission prime minister Indira Gandhi released India's 1st NEP in 1968. It mainly focused on providing equal opportunities to both rural and urban sectors of society. The policy also included the use of Hindi language as our national language which was a bit controversial. It also promoted physical education to promote sports among the students. In 1986 Prime Minister Rajiv Gandhi released India's 2nd NEP. Its main aim was to provide education to each economic sector of the society. It focused on providing education to all without any discrimination based on gender, caste, or economic status. This NEP also included "Operation Blackboard" which aimed at developing primary schools in all parts of India. This policy also included the creation of an open-distance University system which was named Indira Gandhi national Open University (IGNOU). The Policy was then revised in 1992 by P.V. Narasimha Rao added Common Entrance Examination (CEE) to the policy. In 2005 Manmohan Singh revised the policy and added the "Common Minimum Programme" which was a common entrance exam to take admission in various vocational and technical courses.

- A review on National Education Policy 2020 and its influence on academics was done by Shashidharan M, AMET University, B S Hothi, Gitarattan International Business School and team.
- A review of literature in Indian Education by Sharon Beeckler Trang, 1969.

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OBJECTIVES OF THE RESEARCH

The research paper mainly focuses on the major changes in the new education policy. It gives a statistical analysis of the implementation of some of the schemes included in the policy. The main objective on which the research paper focuses is to educate people who do not know about the education policy. This research paper includes students' opinions about various new changes in the policy and how satisfied they are with them it also includes the changes they would like to see in the education policy. It also includes challenges that will occur with the implementation of the new education policy in 2020. It also includes ways that will be helpful for a smoother transition from the old education system to the new education system. It also includes sectors that the government should reconsider and makes changes accordingly.

METHODOLOGY

Primary data collection from students, teachers, parents. Secondary data through various government records. Data processing through demographic analysis, chi-square, and quantitative analysis.

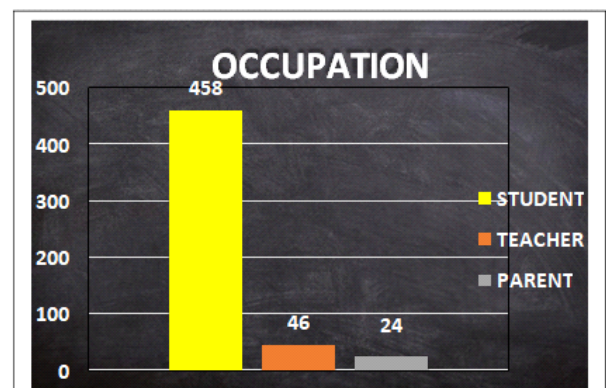
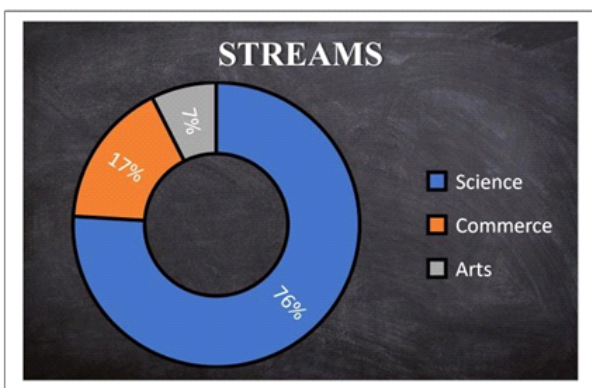
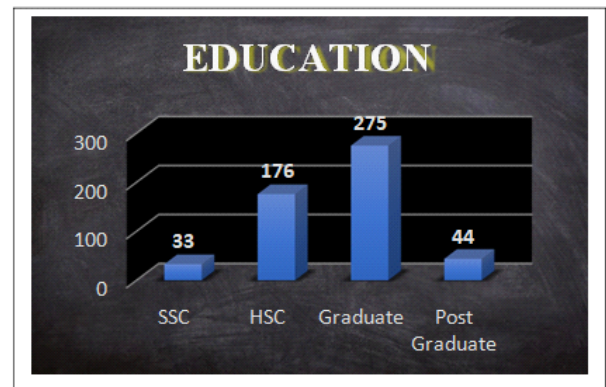
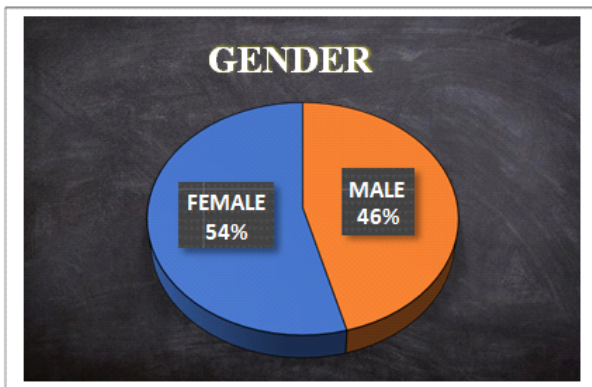
SCALE AND TOOLS FOR ANALYSIS

Nominal, ordinal, interval and ratio scales were used in the study to import the collected responses. Pearson's Chi-square test, Pareto analysis and odds ratio were found out to be the most appropriate statistical tools to find answer to the research objectives.

ANALYSIS AND RESULTS

• DEMOGRAPHIC ANALYSIS

The survey was conducted on students, teachers and parents. 528 people participated in our survey.



• CURRENT EDUCATION SYSTEM

The current education system in India was implemented in the year 1986. It has been a very long time since a New Education Policy was implemented. Let us look at some of the points about the current education system and people's opinion on it.

We asked people about their overall satisfaction with the current education:

Result: The average rating out of 5 was 2.73 i.e. 54% satisfaction

FactorNo	Factors	AverageRating (Out of 5)	SatisfactionLevel	Dissatisfactionlevel
1	Stream division as Arts,Commerce and Science	2.625	52%	48%
2	Getting a graduate degreeonly after completion of 3years and nothing if you dropped out in between	2.5	50%	50%
3	Structure of (10 +2 + 3) years	2.791666667	56%	44%
4	Syllabus being majorly basedon theoretical knowledge	1.833333333	37%	63%
5	Structure of graduation andpost-graduation (UG & PG)system of (3 + 2) years	3.085106383	60%	40%
6	Freedom of subject selection	2.395833333	48%	52%

Pareto analysis is performed based on the data in the above table. Below are the results for it:

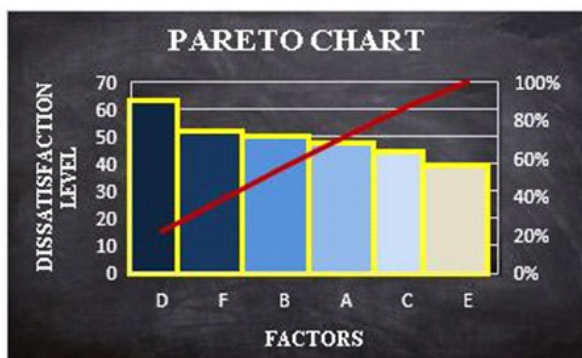


Fig B1

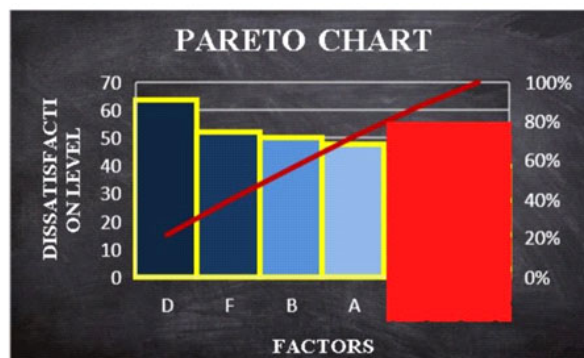


Fig B2

Interpretation: Using Pareto Analysis we can conclude that 80% of the dissatisfaction among people with the current education system occurs due to the factors numbered 1,2,4 and 6 which are highlighted in red in the above satisfaction table. Therefore, improvements should be made regarding these factors to reduce 80% of dissatisfaction.

Overall Perspective of teachers, students and parents regarding the current education system

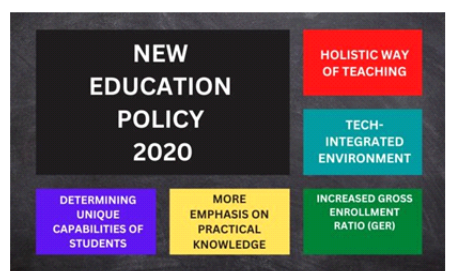
Mostly all the teachers and students think that current education system requires a lot of changes. In present system too much emphasis is given on theoretical knowledge, rather than on practical knowledge. Students struggle for grades in place of knowledge. According to them it should be 40% theory and 60% practical based. Issues are also related to current syllabus which is not updated to the current standards.

Moreover, students want to be allowed to choose their own subject combination.

• **NEW EDUCATION POLICY (NEP) 2020**

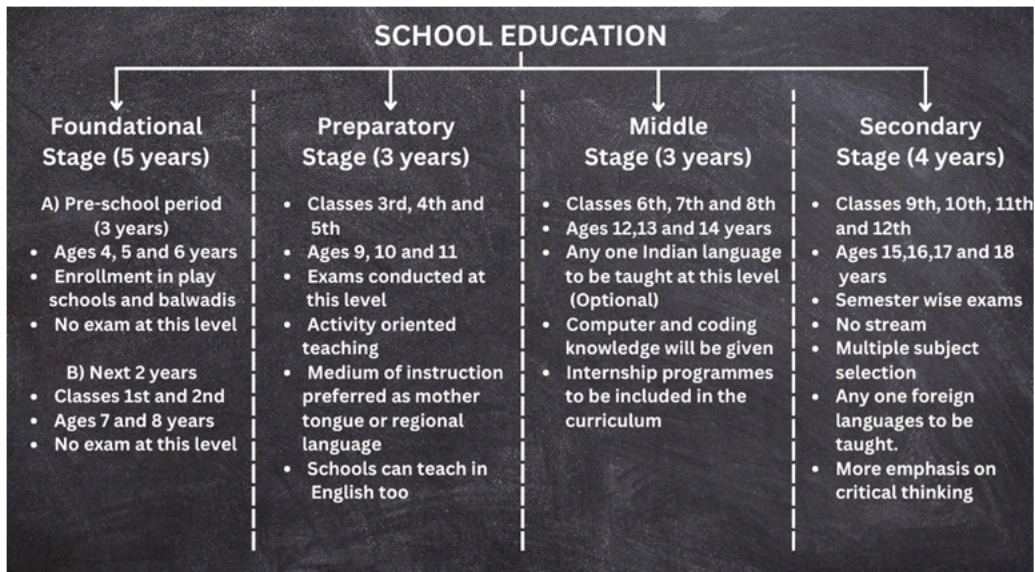
The New Education Policy 2020 was approved on 29th July 2020 by the Union Cabinet. It is India’s third education policy preceded by the policy of 1968 and 1986. Various changes have been made in comparison with the previous education policy. NEP 2020 aims at restructuring the education system and updating it as per today’s requirements. Let us look at some of the features/changes made in the NEP 2020.

General features/changes:



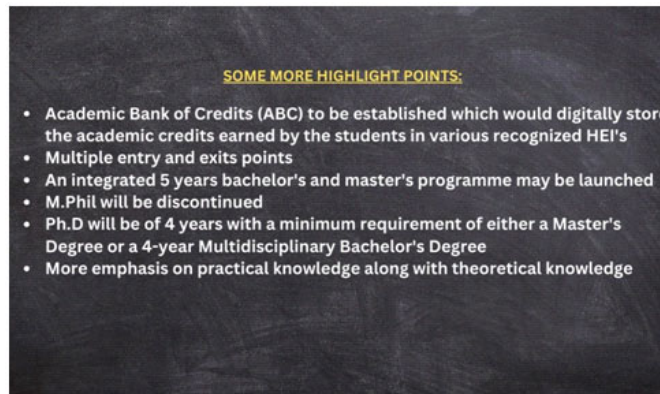
- i) Multidisciplinary and holistic education with multiple entry and exit options.
- ii) Common entrance exam for admission to Higher Education Institutions (HEI'S).
- iii) Academic bank credit to be established
- iv) Transparent processes for recruitment of teachers to form "Light but Tight" regulatory framework.
- v) Open and distance learning will be increased in order to increase GER.
- vi) Creation of National Educational Technology Forum to provide a platform for free exchange of ideas on use of technology.
- vii) Centre and States will work together in order to increase the public investment in Education Sector to take it to 6% of GDP.
- viii) Internationalization – India will be promoted as a global study center which will provide quality education at lower and affordable cost
- ix) GER will be increased to reach at least 50% by 2035 in Higher education
- x) A foundation will be setup in order to increase research programmes across the country.
- xi) Focus on conceptual learning rather than only rote learning for exams

School Education: The structure of school (including high school) education will be of (5 + 3 + 3 + 4) years as compared to (10 + 2) years in the current education system. The highlight points of school education are in the chart below.



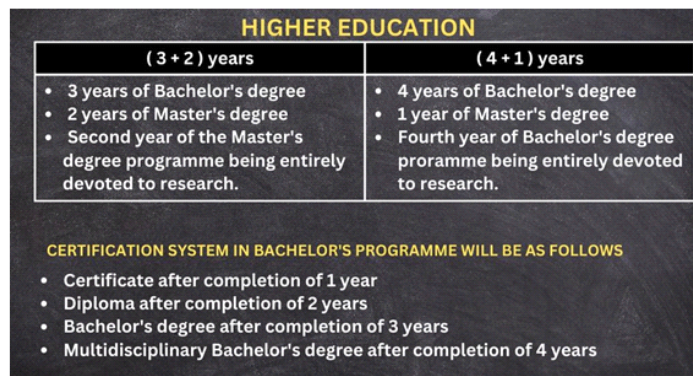
Higher Education: The following chart highlights the key points and the changes made in higher education:

- A more holistic way of teaching.
- Increased GER by 2030
- May have to teach to two or more departments



Changes for teachers:

Structure of teacher's education:



- 4 years B.Ed.- After 12th
- 2 years B.Ed.- 3 years graduation
- 1 year B.Ed.- 4 years graduation or PG
- Admission in B.Ed. Through NTA

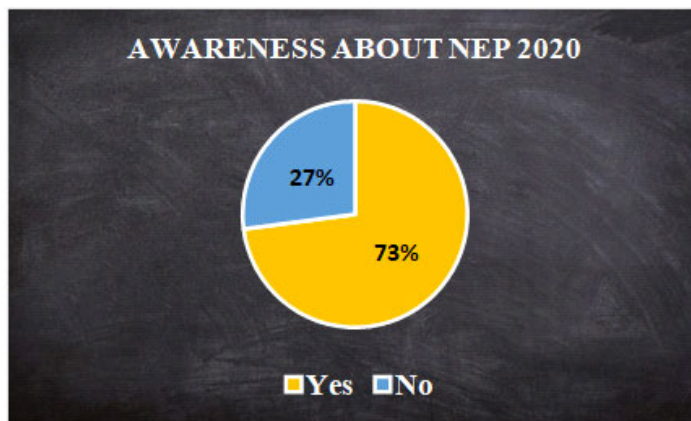
Other changes:

- Should be using more technology tools while teaching.

Analysis

The responses received from the students, teachers and parents were analyzed to study and predict the effects after implementation of NEP 2020. Following are some of the tests and analyses:

- **Awareness among people**



Based on the collected data, 73% of the people were aware about the NEP 2020.

- **Satisfaction table:** Various factors of the NEP 2020 were considered. People were asked to provide their satisfaction level for those factors.

Factor No	Factors	Average Rating (Out of 5)	Satisfaction Level
1	Freedom of selecting your own set of subject combinations	4.291667	86%
2	Academic Bank of Credit	4.208333	84%
3	More weight age being given to practical knowledge	4.395833	88%
4	More tech-integrated environment	4.208333	84%
5	Increase in class strength (GER)	3.395833	55%
6	All entrance exams being merged into a single one.	3.166667	46%
7	Multiple entry and exit policy	3.979167	80%
8	Certification system for Bachelor's degree programme	2.458333	89%

- **Pareto analysis:** Pareto analysis was performed on the above satisfaction table.

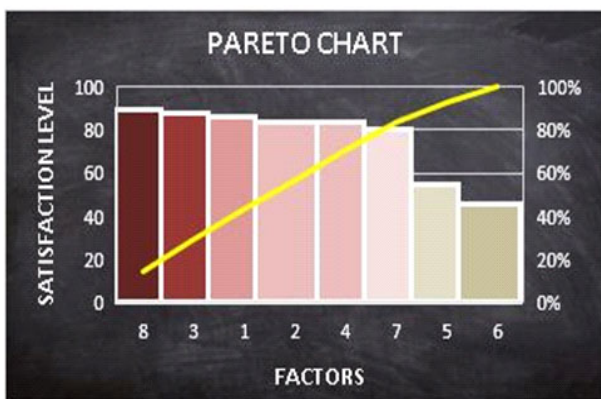


Fig C1

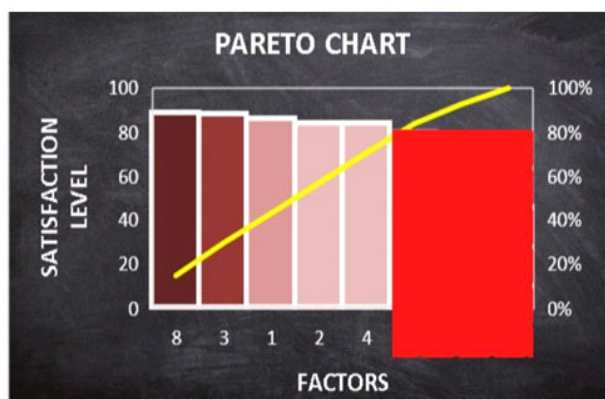
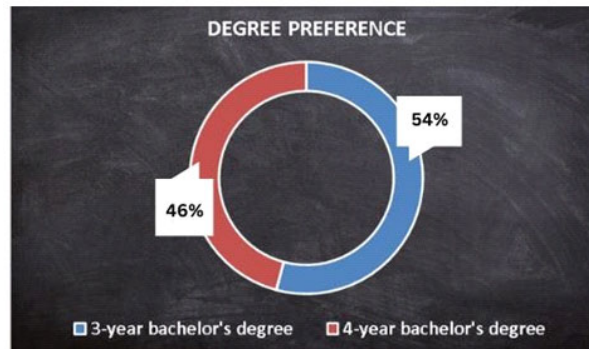


Fig C2

Interpretation: Using Pareto analysis, we can conclude that 80% of the satisfaction among people with the New Education Policy 2020 occurs due to the factors numbered 1, 2, 3, 4 and 8 which are highlighted in red in the above satisfaction table. We can see that people are more satisfied with the features like more emphasis given to practical knowledge, freedom of selection of subject combinations, and academic credit bank. These are some of the improvements included in NEP 2020 in comparison with the current education policy.

- **Bachelor's degree preference**

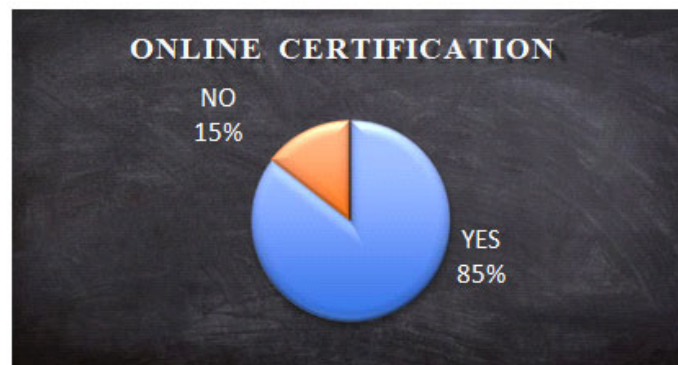


We can see that there is not much of a difference between preference for a 3-year bachelor's degree and a 4-year bachelor's degree. Some the reasons given by the students are as follows:

3-year Bachelor's degree programme	4-year Bachelor's degree programme
<ul style="list-style-type: none"> • Preferred by students who either want to do some other certification/course along with their Bachelor's degree. • Students pursuing CA, Actuarial Science, CMA US, etc opt for this as they just need a bachelor's degree. • Comparatively cheaper • Getting into working field as soon as possible. 	<ul style="list-style-type: none"> • Majorly preferred by students who wish to study their Master's degree or further studies abroad as the institutes/universities abroad require a minimum 4-year Bachelor's degree certificate. • Getting a broader perspective in the chosen subject as the time duration is longer. • Getting an entire dedicated to research.

However, with NEP-2020, students have more options to explore. They have more flexibility while choosing their career paths.

- **Online certifications:**



Students were asked, whether they would like to do an online certification if given a chance. Based on the collected data, 85% of the students said yes. There has been a boost in online certifications after covid-19. With teaching being more digitalized in India, online courses have gained a lot of attention. That's the reason why 85% of the students have said yes for doing an online course.

- **Chi-square test:**

With the implementation of NEP-2020, creating a more tech-integrated environment has been proposed. However, the question whether it really enhances learning experience?

Students/Teachers/Parents were asked a question about both: Do they have a tech-integrated environment? & Whether a tech-integrated environment enhances learning experience?

Based on the collected data, the following Karl Pearson's Chi-Square test was performed:

Hypothesis

To test Tech-integrated environment and enhanced learning experience are independent of each other.

Against Tech-integrated environment and enhanced learning experience are not independent of each other. i.e. A tech-integrated environment enhances learning experience.

Level of significance = $\alpha = 0.05$

Enhanced learning experience →	Yes	No	Total
Tech-integrated environment ↓			
Yes	276	58	334
No	67	57	124
Total	343	115	N = 458

RESULT

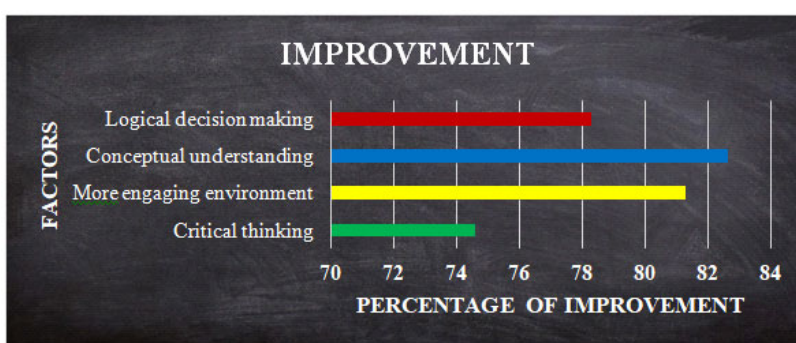
$\chi^2 = 39.3413$ and $p\text{-value} = 0.00001$

Since $p\text{-value} < 0.05$, we reject

∴ Based on the collected data, we can conclude that tech-integrated environment and enhanced learning experience are not independent of each other.

i.e. A tech-integrated environment enhances learning experience. It will directly impact critical thinking ability, social skills, conceptual understanding, and logical decision-making.

The following graph displays the opinion of students/teachers/parents on how much improvement a tech-integrated environment brings in the factors mentioned above.



• **Odds ratio:**

Students/Teachers/Parents were asked two questions: Do they prefer a holistic while learning/teaching? & Whether a holistic approach while learning/teaching helps in personality development?

Personality development skills such as Character formation, Healthy social skills, Manners, Emotional development, Conflict resolution skills, and communication skills.

Based on the collected data, odds ratio was found out:

Improvement in personality development skills →	Yes	No	Total
Holistic approach ↓			
Yes	a = 233	b = 96	329
No	c = 55	d = 74	129
Total	288	170	N = 458

$$\text{Odds Ratio } OR = \frac{ad}{bc} = 3.27$$

RESULT:

Since $OR > 3.27$, based on the collected data we can conclude that there are increased odds of improvement in personality development skills when holistic approach is followed while learning.

CHALLENGES OF NEP-2020

It will take some time to get adjusted with the policy and those who were not under NEP would face a lot of problems and even in getting jobs. NEP gives a chance to select our own subject combination but those who don't know about their interest will be facing issues even if they choose insensible combination then it will be a problem. More faculties will be required and also NEP implementation will be a great task for management and faculties. Increased Gross enrollment ratio can be a main issue for institutions because many institutions cannot sustain a sudden increase of 30%. Selection of own subject combination can also lead to chaos and it will be very difficult for teachers to plan everything. Implementing a tech-integrated in the entire country would be big challenge as it will require a lot of time and money. Bringing so many drastic changes would be very difficult and it will determine the overall effects of NEP.

OPINION OF STUDENTS, TEACHERS, AND PARENTS:

According to most of the students India needs an upgrade in education system and NEP is seen as a major upgrade. NEP might broaden the horizons of knowledge and career options for students. It will increase the focus on the development of skills and competency of students. The policy of introducing multi-disciplinary institutions will improve the focus on every field like arts, science, philosophy, etc. The NEP aims to set the National Professional Standards for Teachers (NPST) so that all students at all levels will be taught by passionate, motivated, highly qualified teachers. Students are happy about the emphasis given to practical knowledge more. Most of the students and teachers are satisfied with NEP-2020 and are looking forward to it. According to parents, the NEP-2020 will be beneficial to students. Also, they think that the holistic approach of teaching will increase their child's efficiency. Overall parents are satisfied with NEP-2020

CONCLUSION

NEP-2020 looks very promising and will definitely be a big change in India's education system. NEP-2020 is a needed change for us as the current policy has become outdated. However, it is really important to implement NEP-2020 properly. Proper implementation can do wonders for India's new generation of students. Overall, it is an excellent policy.

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