New Education Policy of India: A Comparative Study with the Education System of USA

Ms. Sujatha Ramesh, Dr. K. Natarajan
Curriculum Development Director, LEAD School, Mumbai, India
Scientist and Chief, Advanced Research, (ISRO) (Retd.), Trivandrum, India
Corresponding Author: Dr. K. Natarajan

ABSTRACT: The New Education Policy (NEP) of the Government of India has assumed great importance in order to modernize and streamline the education system right from the school level to doctoral programs. This paper has analyzed the salient features of NEP, India and compared it with the educational system of USA.

KEYWORDS: Education policy, India; American education; comparative study.

Date of Submission: 11-06-2019
Date of acceptance: 28-06-2019

I. INTRODUCTION

The New Education Policy (NEP) has been one of the most significant proposals of the Hon. Prime Minister of India since 2014. This has assumed great importance during the last month and is expected to be initiated within the first 100 days of the second term of the government of the Prime Minister. The NEP, also known as National Education Policy, will be handed over to the Human Resources Development (HRD) Ministry and scrutinized thoroughly before implementation. The last NEP was released in 1986, with a revision in 1992. Since education needs periodic reforms, rapid implementation of this will be in line with the accelerated growth of India. While the details of the policy are still unclear, the focus is likely to be on improving the quality of education, curriculum and roping in new technology. There will be clarity as continued discussions take place across the nation and feedback obtained from students, teachers, educational administrators and intelligentsia.

As a sequel to NEP, Education Quality Upgradation and Inclusion Programme (EQUIP) is another ambitious policy the government has planned. The Rs 1.5 lakh crore action plan is in the pipeline, with an aim to improve the quality and accessibility of higher education over the next five years. EQUIP is planned to be to higher education what the Sarva Shiksha Abhiyan was to school education. EQUIP was crafted by ten committees led by experts within the government such as NITI Aayog CEO Amitabh Kant, principal scientific advisor K Vijay Raghavan and former revenue secretary Hasmukh Adhia, as well as some corporate chiefs. Education under 10 different broad areas, including accessibility, accreditation, employment, research, teacher recruitment process for colleges and universities, are some of the areas the HRD Ministry plans to work on. NEP also recommends a Rashtriya Shiksha Aayog chaired by the Prime Minister. It will have on board the Chief Justice of India, Lok Sabha Speaker, Leader of Opposition in Lok Sabha, Education Minister and top academia. It also recommends that the HRD ministry be renamed as the Ministry of Education.

In order to promote the NEP, the Ministry of HRD (MHRD) initiated an unprecedented collaborative, multi-stakeholder, multi-pronged, bottom-up people-centric, inclusive, participatory consultation process. The extensive consultations undertaken across multiple levels of online, expert and thematic, and from the grassroots ranging from village, block, urban local bodies, district, state, zonal and the national level, provided an opportunity to every citizen to engage in this massive exercise. The basic aims of the NEP are: 1. To equip students with the necessary skills and knowledge; 2. To eliminate the shortage of manpower in science, technology, academics and industry; and 3. The Draft National Education Policy, 2019 is built on the foundational pillars of Access, Equity, Quality, Affordability and Accountability.

II. METHODOLOGY

A combination of qualitative and quantitative techniques was adopted to understand the education policy of India. It became necessary to visit schools in varied places since different State Boards follow different systems. Also, there are varied educational patterns such as CBSE, ICSE, etc. in India. In many Southern States, subjects are taught through the local languages such as Tamil, Telugu, Kannada, etc. in addition, we also have International Schools which follow different syllabus. Such diversity required wide-spread visits to different schools across the country. For USA, case studies were conducted in Indian institutes collaborating with US Universities in terms of twinning programs. Discussions were held with the students as well as teachers of the
schools and colleges visited, and their opinions obtained. In addition, the published data available regarding US education constitute secondary data. The data collected were analyzed and correlated to facilitate comparative study of Indian and American education systems. The New Education Policy guidelines available in the websites of Prime Minister’s Office (PMO) as well as the Ministry of Education, Government of India gave important input for this trade off study. The data obtained from such primary and secondary sources gave important inputs in arriving at certain conclusions and recommendations.

III. NEW EDUCATION POLICY: SALIENT FEATURES

The Government of India is currently investigating the feasibility of implementation of a revised education system called New Education Policy (NEP) in order to modernize and streamline education right from the early elementary or preliminary schooling system for children and adults. The NCERT will devise curricula from pre-primary to Class 12 to bring in some flexible approach and focus on numeracy, critical thinking, languages and knowledge of India, among other aspects. The idea is to replace the traditional 10 plus 2 system. Some of the major recommendations of the NEP are:

1. Replacing the 10+2 system, (replacing ‘high stakes’ Class 10 and 12 exams) with subject-wise ‘modular’ assessments anytime between Classes 9 and 12.
2. “Census Examinations” for classes 3, 5 and 8 to track progress throughout the school experience.
3. Deregulating higher education to allow students to opt for courses, exit them mid-way and resume them at fully autonomous public and private institutes.

The NEP is driven by an emphasis on a ‘liberalised’ and flexible education system which allows for mobility as well as exposure to the liberal arts. It underlines the glory of ancient Indian universities of Nalanda and Takshashila and their ‘liberal’ approach to education. It underlines the need to bring in the rich Indian culture, tradition and knowledge systems as well as ‘ethics’, constitutional values and contribution to community or ‘seva’ in the education system. The salient features of School Level and Post-School Level Education as proposed in the NEP are described below.

School Level Education

For NEP, the salient features of school education are:

1. The policy recommends replacing the 10+2 format with a 5+3+3+4 structure. This implies five years of a ‘Foundational Stage’ that will include three years of Pre-primary and Classes 1 and 2. It will be followed by three years of ‘Preparatory Stage’, three years of Middle School and four years of Secondary Stage.
2. All students will take “State Census Examinations” in grades 3, 5 and 8 where they would be tested on core concepts, knowledge and higher order skills. The grade 3 census examination, for instance, would test basic literacy, numeracy, and other foundational skills.
3. Each year of the Secondary Stage will be divided into two semesters. Each student would take five to six subjects in each semester.
4. To counter “the harmful effects of board and entrance examinations”, the panel recommends restructuring them to a ‘modular’ format allowing students to take the board examination in each subject at the end of the semester in which they take that subject.
5. Students will be expected to take a total of at least 24 subject board examinations, or on average three a semester instead of final examinations.
6. Language is a key focus of the policy which strongly recommends making the mother tongue the mode of instruction at least until class five and preferably till at least class eight. It recommends Sanskrit be offered at all levels of school and higher education as one of the optional languages on par with all Schedule 8 languages.
7. All students will be asked to take at least two years of a classical language of India in classes 6-8, with the option to continue through secondary education and University too.

Post School Higher Education

The post-school level features for the NEP are as follows:

1. The panel suggests that higher education system be brought under a single regulator -- National Higher Education Regulatory Authority (NHERA). While University Grants Commission (UGC) will become a purely grant providing body. Entities like All India Council for Technical Education, Medical Council of India and National Council for Teacher Education should evolve into professional standard setting bodies.
2. The policy suggests three types of universities: Research-focussed universities, comprehensive teaching and research universities and teaching-focused universities.
3. Emphasizing on liberal arts and liberal education tradition of Takshashila and Nalanda, the committee has recommended a four-year bachelor of liberal arts or bachelor of liberal education degree.
4. The panel suggests that undergraduate courses may move to a three- or four-year duration with multiple exit options, allowing for say, an advanced diploma in a discipline after completing two years of study or a diploma after completing one year.

5. Different designs of Masters programme are proposed from a twoyear programme with the second year devoted entirely to research or an integrated five-year bachelor’s/masters programme besides a one-year masters programme for those who have completed a four year programme.

6. Institutes will be permitted to offer PhD with either a master’s degree or a four-year bachelor’s degree with research.

A ‘Committee for Evolution of the New Education Policy’ under the Chairmanship of Late TSR Subramanian, Former Cabinet Secretary, was constituted, which submitted its report in May, 2016. Based on this report, the ministry prepared ‘Some Inputs for the Draft National Education Policy, 2016’. Some of the changes proposed are (India Today, 2019):

1. The committee has proposed to rename MHRD as Ministry of Education (MoE).

2. In school education, a major reconfiguration of curricular and pedagogical structure with Early Childhood Care and Education (ECCE) as an integral part of school education is proposed.

3. The committee also recommends Extension of Right to Education Act 2009 to cover children of ages 3 to 18. A 5+3+3+4 curricular and pedagogical structure based on cognitive and socio-emotional developmental stages of children: Foundational Stage (age 3-8 yrs): 3 years of pre-primary plus Grades 1-2; Preparatory Stage (8-11 years): Grades 3-5; Middle Stage (11-14 years): Grades 6-8; and Secondary Stage (14-18 years): Grades 9-12. Schools will be re-organized into school complexes.

4. It also seeks to reduce content load in school education curriculum.

5. There will be no hard separation of learning areas in terms of curricular, co-curricular or extra-curricular areas and all subjects, including arts, music, crafts, sports, yoga, community service, etc will be curricular.

6. It promotes active pedagogy that will focus on the development of core capacities: and life skills, including 21st century skills.

7. The committee proposes for massive transformation in teacher education by shutting down sub-standard teacher education institutions and moving all teacher preparation/education programmes into large multidisciplinary universities/colleges.

8. The 4-year integrated stage-specific B.Ed. programme will eventually be the minimum degree qualification for teachers.

9. In higher education, a restructuring of higher education institutions with three types of higher education institutions is proposed-

   Type 1: Focused on world-class research and high quality teaching

   Type 2: Focused on high quality teaching across disciplines with significant contribution to research;

   Type 3: High quality teaching focused on undergraduate education. This will be driven by two Missions - Mission Nalanda & Mission Takshashila.

10. There will be re-structuring of Undergraduate programs (e.g. BSc, BA, BCom, BVoc) of 3 or 4 years duration and having multiple exit and entry options.

11. A new apex body Rashtriya Shiksha Ayog is proposed to enable a holistic and integrated implementation of all educational initiatives and programmatic interventions, and to coordinate efforts between the Centre and states.

12. The National Research Foundation, an apex body is proposed for creating a strong research culture and building research capacity across higher education.

13. The four functions of standard setting, Funding, Accreditation and Regulation to be separated and conducted by independent bodies: National Higher Education Regulatory Authority as the only regulator for all higher education including professional education.

14. Creation of accreditation eco-system led by revamped NAAC.

15. Professional Standard Setting Bodies for each area of professional education and UGC to transform to Higher Education Grants Commission (HEGC).

16. The private and public institutions will be treated on par and education will remain a 'not for profit' activity.

17. Several new policy initiatives for promoting internationalization of higher education, strengthening quality open and distance learning, technology integration at all levels of education, adult and lifelong learning and initiatives to enhance participation of under-represented groups, and eliminate gender, social category and regional gaps in education outcomes were also recommended.

18. Promotion of Indian and classical languages and setting up three new National Institutes for Pali, Persian and Prakrit.

19. Indian Institute of Translation and Interpretation (IITI) has been recommended.
The path breaking reforms recommended will bring about a paradigm shift by equipping our students, teachers and educational institutions with the right competencies and capabilities and also create an enabling and reinvigorated educational eco-system for a vibrant new India.

**Right to Education (RTE) Act of India**

On 3 January, 2019, parliament amended Section 16 of the Right to Education (RTE) Act, popularly known as the ‘No Detention Policy’ (NDP) (Natasha Joshi, 2019). The policy guaranteed promotion through class 1-8 for all children, irrespective of their readiness. The now amended policy allows states to frame rules that could re-introduce detention in class 5 or class 8. The rationale provided for the amendment is as follows: with guaranteed promotion, students and teachers feel no compulsion to learn or teach, which has an adverse impact on learning. The implication is: high stakes exams help drive learning. This notion was tackled by the original framers of RTE, who argued that exams create unnecessary pressure, and detention as a consequence of exams, is unhealthy for children. Holding children back in classrooms where they have failed to learn, without changing anything about the teaching-learning process, doesn’t improve learning. It leads to children dropping out. Additionally, detention in early classes labels children as ‘failures’ too soon; and for that reason alone, detention in elementary school should be prohibited.

National Achievement Survey (NAS) data shows that between 2003 and 2007, 19 out of 28 states with a no-detention policy showed improvements in learning. In other words, states improved their results in 2007 without detaining students. Positive trends in reading were reported in the early Annual Status of Education Reports (ASER) surveys of 2005-2007 as well. Curiously, learning outcomes dipped soon after. ASER series data (Fig. 1) has captured a falling trend in learning, and the ASER 2012 report noted a correlation between the passing of RTE, and slide in learning levels (Natasha Joshi, 2019). One silver lining in NDP amendment is that states have been given a choice on whether to detain students, or continue with a no-detention policy. The hope is states will examine evidence, confront the real issues plaguing education, and do what is right by children. ASER (2019) gives a detailed account of current educational scenario in rural India.

**IV. EDUCATION SYSTEM OF USA**

The American system is characterized by a wide variety of choices for both American and international students. There is such an array of schools, programs and locations that the choices may overwhelm students, even those from the U.S. So, one needs to understand the education system in the United States thoroughly before choosing a course.

**U.S. Primary and Secondary Schools**

Important aspects of U.S. Primary and Secondary Schools are:
1. Prior to higher education, American students attend primary and secondary school for a combined total of 12 years. These years are referred to as the first through twelfth grades.
2. Around age six, U.S. children begin primary school, which is most commonly called “elementary school.” They attend five or six years and then go onto secondary school.

![Figure 1 ASER Survey of Rural Education in India (Thanks: Natasha, 2019)](image-url)
3. Secondary school consists of two programs: the first is “middle school” or “junior high school” and the second program is “high school”.

4. A diploma or certificate is awarded upon graduation from high school. After graduating high school (12th grade), U.S. students may go on to college or university. College or university study is known as “higher education.”

U.S. Higher Education
The American Higher Education system consists of (A). Bachelor’s Degree, (B). Master’s Degree and (C). Ph.D. programs as follows:

A. Bachelor’s Degree
- A student, who is attending a college or university and has not earned a bachelor’s degree, is studying at the undergraduate level. It typically takes about four years to earn a bachelor’s degree. You can either begin your studies in pursuit of a bachelor’s degree at a community college or a four-year university or college.
- During your first two years of study you will generally be required to take a wide variety of classes in different subjects, commonly known as prerequisite courses: literature, science, the social sciences, the arts, history, and so forth. This will help you to achieve a general knowledge, a foundation, of a variety of subjects prior to focusing on a specific field of study.
- Many students choose to study at a community college in order to complete the first two years of prerequisite courses. They will earn an Associate of Arts (AA) transfer degree and then transfer to a four-year university or college.
- A “major” is the specific field of study in which your degree is focused. For example, if someone’s major is journalism, he will earn a Bachelor of Arts in Journalism. You will be required to take a certain number of courses in this field in order to meet the degree requirements of your major. You must choose your major at the beginning of your third year of school.
- A very unique characteristic of the American higher education system is that you can change your major multiple times if you desire. It is extremely common for American students to switch majors at some point in their undergraduate studies. Often, students discover a different field that they excel in or enjoy. The American education system is very flexible. Keep in mind though that switching majors may result in more courses, which means more time and money.

B. Master’s Degree
- Presently, a college or university graduate with a bachelor’s degree may want to seriously think about graduate study in order to enter certain professions or advance their career. This degree is usually mandatory for higher-level positions in science, engineering, behavioral health and education.
- Furthermore, international students from some countries are only permitted to study abroad at a graduate level. You should inquire about the credentials needed to get a job in your country before you apply to a postgraduate university in the USA.
- A graduate program is usually a division of a university or college. To gain admission, you will need to take the GRE (graduate record examination). Certain master’s programs require specific tests, such as the LSAT for law school, the GRE or GMAT for business school, and the MCAT for medical school.
- Graduate programs in pursuit of a master’s degree typically take one to two years to complete. For example, the MBA (master of business administration) is an extremely popular degree program that takes about two years. Other master’s programs, such as journalism, only take one year.
- The majority of a master’s program is spent in classroom study and a graduate student must prepare a long research paper called a “master’s thesis” or complete a “master’s project.”

C. Doctorate Degree
- Many graduate schools consider the attainment of a master’s degree the first step towards earning a PhD (doctorate). But at other schools, students may prepare directly for a doctorate without also earning a master’s degree. It may take three years or more to earn a PhD degree. For international students, it may take as long as five or six years.
- For the first two years of the program most doctoral candidates enroll in classes and seminars. At least another year is spent conducting firsthand research and writing a thesis or dissertation. This paper must contain views, designs, or research that have not been previously published.
- A doctoral dissertation is a discussion and summary of the current scholarship on a given topic. Most U.S. universities awarding doctorates also require their candidates to have a reading knowledge of two foreign languages, to spend a required length of time “in residence,” to pass a qualifying examination that officially admits candidates to the PhD program, and to pass an oral examination on the same topic as the dissertation.
U.S. Grading and Credits System
The U.S. citizens as well as foreigners will have to comply with grading and credit system prevailing in the institutions:
1. Just like American students, any student will have to submit his academic transcripts as part of his application for admission to university or college. Academic transcripts are official copies of your academic work. In the U.S. this includes your “grades” and “grade point average” (GPA), which are measurements of your academic achievement. Courses are commonly graded using percentages, which are converted into letter grades.
2. The grading system and GPA in the U.S. can be confusing, especially for international students. The interpretation of grades has a lot of variation. For example, two students who attended different schools both submit their transcripts to the same university. They both have 3.5 GPAs, but one student attended an average high school, while the other attended a prestigious school that was academically challenging. The university might interpret their GPAs differently because the two schools have dramatically different standards. Therefore, there are some crucial things to keep in mind:
   - You should find out the U.S. equivalent of the last level of education you completed in your home country.
   - Pay close attention to the admission requirements of each university and college, as well as individual degree programs, which may have different requirements than the university.
   - Regularly meet with an educational advisor or guidance counselor to make sure you are meeting the requirements.
   - Your educational advisor or guidance counselor will be able to advise you on whether or not you must spend an extra year or two preparing for U.S. university admission. If an international student entered a U.S. university or college prior to being eligible to attend university in their own country, some countries’ governments and employers may not recognize the students’ U.S. education.

Credits and Transfers in U.S. Education
Each course is worth a certain number of credits or credit hours. This number is roughly the same as the number of hours a student spends in class for that course each week. A course is typically worth three to five credits. A full-time program at most schools is 12 or 15 credit hours (four or five courses per term) and a certain number of credits must be fulfilled in order to graduate. International students are expected to enroll in a full-time program during each term. If a student enrolls at a new university before finishing a degree, generally most credits earned at the first school can be used to complete a degree at the new university. This means a student can transfer to another university and still graduate within a reasonable time. Classification of US Higher Education Universities

U.S. University Classifications
The U.S. Universities are generally classified as:
1. State College or University: A state school is supported and run by a state or local government. Each of the 50 U.S. states operates at least one state university and possibly several state colleges. Many of these public universities schools have the name of the state, or the actual word “State” in their names: for example, Washington State University and the University of Michigan.
2. Private College or University: These schools are privately run as opposed to being run by the government. Tuition will usually be higher than state schools. Often, private U.S. universities and colleges are smaller in size than state schools. Religiously affiliated universities and colleges are private schools. Nearly all these schools welcome students of all religions and beliefs. Yet, there are a percentage of schools that prefer to admit students who hold similar religious beliefs as those in which the school was founded.
3. Community College: Community colleges are two-year colleges that award an associate’s degrees (transferable), as well as certifications. There are many types of associate degrees, but the most important distinguishing factor is whether or not the degree is transferable. Usually, there will be two primary degree tracks: one for academic transfer and the other prepares students to enter the workforce straightaway. University transfer degrees are generally associate of arts or associate of science. Not likely to be transferrable are the associate of applied science degrees and certificates of completion. Community college graduates most commonly transfer to four-year colleges or universities to complete their degree. Because they can transfer the credits they earned while attending community college, they can complete their bachelor’s degree program in two or more additional years. Many also offer ESL or intensive English language programs, which will prepare students for university-level courses.
4. Institute of Technology: An institute of technology is a school that provides at least four years of study in science and technology. Some have graduate programs, while others offer short-term courses.
V. CLASSROOM ENVIRONMENT IN INDIA AND USA

In India, the classes have been traditionally held using the black boards and chalks. Nowadays, the power point presentation has become very common. Some advanced higher education institutes do use modern technologies for teaching. In the USA, the classes range from large lectures with several hundred students to smaller classes and seminars (discussion classes) with only a few students. The American university classroom atmosphere is very dynamic. You will be expected to share your opinion, argue your point, participate in class discussions and give presentations. International students find this one of the most surprising aspects of the American education system. Each week professors usually assign textbook and other readings. You will be expected to keep up-to-date with the required readings and homework so you can participate in class discussions and understand the lectures. Certain degree programs also require students to spend time in the laboratory. Each professor will have a unique set of class participation requirements, but students are expected to participate in class discussions, especially in seminar classes. This is often a very important factor in determining a student’s grade. A midterm examination is usually given during class time. One or more research or term papers, or laboratory reports must be submitted for evaluation.

VI. EDUCATIONAL TECHNOLOGY IN INDIA AND USA

If India has to be successful, the NEP should focus attention on utilization of novel technologies for education. Modern technology has seeped into the classrooms and redefined the entire teaching and learning process. Industry experts view this marriage between education and technology to be a positive step towards better student engagement, resource management, and financial planning of institutions. The seamless peer to peer collaboration will eventually lead to a redefinition of culture as an amalgamation of better social learning experiences. It will further investments in cloud technology, biometrics, and open source learning methods.

Leveraging technology in education will be of paramount interest to teachers and educators; e.g., Flipgrid, a video discussion platform is being employed with young children in schools. It is amazing how quickly young children engage and embrace learning with the opportunity to incorporate technology into their practice. Tools that foster oral, audio, and written skills are of interest to young learners and allow them to express themselves beyond the capacity of their writing abilities. Much work with critical thinking can also be done in this manner when tools such as Seesaw blogs or flipgrid are used to support learning. Selvakumar Raja and Natarajan (2000) have discussed how quality of education can be improved using technologies, nearly two decades back. Some of the possible technologies that will help education in the modern era are:

- **Artificial Intelligence (AI):** India is one of the leaders in information technology. We have already moved towards a connected world. In the US alone, the AI market in the education sector is expected to be valued at close to USD 85 million by 2022. The role of AI in the education sector is no longer limited to aspects like speech recognition, problem-solving, and planning. Rather AI facilitates automation of administrative tasks like students’ grading, the addition of smart content in the curriculum, and personalization of the teaching process. Since illiteracy is very high in India, AI will be even more relevant.

- **Virtual Reality (VR) in Education:** India is emerging as the medical capital of the world. This is because, Indian hospitals provide inexpensive treatment even for complex surgeries and procedures. The high adoption of VR in education is partly due to the rise in demand for experiential learning. By taking the learning process beyond the classrooms, VR has facilitated the growing trend towards independent learning route. For instance, the medical realities platform employs the VR technology to help the medical students watch live broadcasts of simulated surgeries, giving them real-world experiences – something they wouldn’t normally get until late in their training. This virtual reality is appropriate for Indian students who have less opportunities to perform difficult operations.

- **Gamification:** The Adoption of gamification is perhaps one of the biggest trends in educational technology that turns the learning process lot more fun and engaging. By adding game elements and bringing video game designs into the learning process, this edtech trend improves the concentration level of the students. While until recently, the K-12 education sector has been a major user of gamification; the higher education segment is also gearing up to adopt this technology to enhance the learning experience of students.

- **Learning Analytics:** Another emerging trend in the educational technology industry is the use of learning analytics. By utilizing the existing data effectively, this edtech facilitates better monitoring of the student behaviour. Market experts have observed that the higher education segment has contributed close to 75% of growth in the global learning analytics market in the year 2017. Governments across the globe, especially in the US, are encouraging digitization of education. Products like Blackboard Analytics and Brightspace from D2L have pushed investors to come up with strategies to widen their market share in the emerging countries.

- **Immersive Learning:** With the popularity of VR and mixed reality, immersive learning has emerged as one of the important educational technologies which are transforming not only the education system; but also
helping corporates plan better training programs for their employees. Thus, both the employers as well as employees will be benefited.

- Smart Learning Environment (SLEs): SLEs are one of the best ways in which the hybrid learning approach can be put into action. This IoT based learning solution encourages personalized education system, driving better engagement and skill enhancement. Seen as one of the best by-products of IoT in education, SLEs have encouraged industry stakeholders to revamp their investment strategies and launch better edtech products.

- Digital Course Materials: A major problem in Indian schools and colleges is that the text books are not given to the students in time. Technology can solve this problem. This technological trend has directly affected the sales of textbooks and course materials, as students prefer spending on the digital course materials. With smart phones and high penetration of internet even in villages of India, assignments too have gone digital in nature. The very premise of educational technology is incomplete without digital content, thus advances in designing of the digital content are sure to have a positive impact on the future of education.

- Game Theory: The complex pedagogical situations and challenges in the teaching process have triggered the need for a better synchronization of the teaching process. Game theory helps to reach an optimal mixed strategy which will enable tutors to choose the best possible action in a given situation. Disciplines like financial and economic analysis, as well as applied mathematics in economics, have already benefitted from game theory. It will be interesting to observe how this edtech will change the face of pedagogy in the forthcoming years.

- Mobile Technology and IoT: Any discussion on edtech is incomplete without highlighting the role of IoT. The ability of IoT to track the staff and students along with connecting devices across the campus has helped improve the safety standards of institutions. In fact, the very premise of smart education has been possible due to IoT. The improvements in mobile technology have further enabled the use of IoT as a major educational technology.

- STEAM: One of the newest educational technologies, STEAM is an integrated approach to learning. This educational model makes use of science, education, arts, and mathematics to instill critical thinking among the students. Some educational technology experts consider STEAM to be a major improvement over the STEM programs.

VII. RESULTS AND DISCUSSIONS

Prior to higher education, American students attend primary and secondary schools for a combined total of 12 years. These years are referred to as the first through twelfth grades. The NEP, India, has 5 plus 3 plus 4 structure. An important feature of the NEP is an overarching emphasis on a ‘liberalised’ and flexible education system which allows for mobility as well as exposure to the liberal arts. The American system has been traditionally highly flexible and allows a student to make a choice from a variety of courses. A student can also change course at specified time if he so chooses. The NEP is still in the proposal stage, but envisages similar flexibility in the choice and change of courses. The NEP suggests that undergraduate courses may move towards a three or four-year duration with multiple exit options allowing for an advanced diploma in a discipline after completing two years of study; or a diploma after completing one year.

The American education system has been one of the most advanced ones for several decades. The American institutions use the latest technologies such as AI, IoT, Gaming, Virtual Reality, SLEs, etc. The NEP also has proposed use of modern technologies in education to the extent possible. The NEP has further, proposed that good American and European Universities can establish their Campuses in India so that Indians receive high quality education at less cost, compared to full-time higher education abroad. Further, good quality, original research is possible through NEP, because it envisages setting up Universities with focus on research.

The NEP places emphasis on Indian culture. It underlines the glory of ancient Indian universities of Nalanda and Takshashila and their approach to education. It underlines the need to bring in the rich Indian culture, tradition and knowledge systems besides strong ethical aspects of Indian society. It also wants the students to respect the constitutional values, and service to community or ‘seva’ through the education system.

VIII. CONCLUSION

This Paper has compared the proposed New Education Policy of India, 2019, with the educational system prevailing in USA. The technologies appropriate for the NEP are also presented. The NEP, if implemented will promote flexibility in the choice of courses for the students. Further, the NEP will also permit switchover to a different course, or to a different degree/ diploma programs, similar to the system prevailing in most of the educational institutes of USA. Such a flexible approach will ensure that the right students embark on right educational programs to promote optimal national productivity.
REFERENCES


