Chapter

Indian Education: Ancient, Medieval and Modern

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Abstract

Education is a platform in which young generations are trained and make them future-ready. Education provides knowledge and skills which help the person to be employable. The Indian education system is very popular and diversified among other countries' education systems due to its change in the evolution from ancient to the modern education system. During the ancient and medieval periods of education, students were trained by teachers in such a manner that they can survive and live in that era. After independence, there is a tremendous growth in the Indian education system providing teaching and training in all aspects, but it does not satisfy the global demands of the market. This chapter focuses on teaching methodology, curriculum, characteristics, methods of learning, aims of the Indian education system during the ancient and medieval period and how it differed in today's modern education and what are the things that our today's modern education need to learn and implement from ancient and medieval education. The mentioned points are used to differentiate ancient, medieval, and modern education with advantages and disadvantages. Through this chapter, students, teachers will get to know the difference in the education system and what else to be adapted in the future to overcome all the problems.

Keywords: education, learning, curriculum, ancient, medieval, modern

1. Introduction

Technological improvement has boosted the economic growth in India. Science and technology have an important role in the economic development of India. Compared to other developed countries, India has more youth manpower. Proper education will play a significant role in making youth future-ready and increasing economic growth by providing skilled persons which will also boost industrial development. In the modern era of education, every institution or university is adapting new teaching methods using their teaching methodologies. Indian education is the biggest and well-known education systems in the world. During ancient education, there were 5 big well-known universities like Takshashila, Nalanda, Vallabhi, etc., which focus on the all-round development of students and those in the medieval period there exists 2 institutions madrasah and maqtabs which mostly focus on building student religious and leaders of the future. In modern education, there are well known autonomous institutes like IITs and IIMs which are famous all around the world.

During ancient education, students live away from their parents, their education comprises of subjects like physical education, mental education, politics, economics, etc. They were shaped in a way that they can live in any condition considering how difficult the situation will be? Medieval education also followed the same protocol as ancient education in spite that their education mostly focuses on religion. In today's modern era of big institutes like the Indian Institute of Technology (IITs) and Indian Institute of Management (IIMs), everything is changed like the living standard of students, curriculum, all-round development. The principle objective of the student has been to just achieve its goal and be successful. Only the big institutes like IITs, IIMs, and some other private and aided universities have adopted modern methods of learning. There is a difference in curriculum, teaching methods, and living standards of students in every institute. The syllabus of the current education system is not industry-oriented and also not according to new upcoming trends. The main objective of education is mostly theoretical and not practically implemented [1].

The main purpose of this paper is to convey what all the things need to adopt in our current education system from ancient and medieval times and also some new trends associated with it. The paper is mainly categorized into three sections Ancient, Medieval and Modern education system, including sub-sections such as curriculum, method of learning, the aim of education, characteristics of education, educational institutes, higher educational institutes, advantages, and disadvantages of the particular education system.

2. Ancient education

During the ancient period, two systems of education were developed, Vedic, and Buddhist. The medium of language during the Vedic system was Sanskrit, while those in the Buddhist system were pali. During those times the education was of Vedas, Brahmanas, Upnishads, and Dharmasutras. From the Rigveda onwards, our ancient education started with the objective of developing the students not only in the outer body but also on the inner body. The ancient education focused on imparting ethics like humility, truthfulness, discipline, self-reliance, and respecting all creations to the students. The education was mostly imparted in ashrams, gurukuls, temples, houses. Sometimes pujaris of the temples used to teach students. The education system of ancient India has some special features and uniqueness which was not found in any other ancient education system of the other countries. The education was mostly given in forests under the blue sky, which keeps the student's mind fresh and alive. During ancient times people used to live a simple life and doing their work with devotion and hard work [2].

2.1 Aim of education

The main objective of education was to equip the students with a good quality of education. The education mostly focused on the enrichment of culture, character, and personality, development, and cultivation of noble ideals. The objective was gaining the mental, physical, and intellectual personality of students, to make the students future-ready and survive in any situation [3].

2.2 Characteristics of education

During the ancient period, the state government and the people did not interfere in designing curriculum, payments of fees, regulation of teaching hours. There was

a strong bonding between teacher and student. Every student was allotted with one teacher and more emphasis was given to the student-teacher relationship, each student used to meet teachers personally to learn and gain instructions from them. During ancient times, royal families, as well as kings of states, used to donate their wealth to improve the education system and quality. The syllabus was designed in accordance with the demands of that era. At that time students used to leave their houses and went to live with their gurus until their education was completed. During the early Vedic period, women's education was also given more emphasis. The education focuses on the physical and mental development of students. The course duration was about 10–12 years, as there were no books so students used to memorize all things, memory played a crucial role during learning. The education was imparted in forests away from cities and peoples to give students a pleasant and silent environment of study.

2.3 Curriculum

Curriculum plays an essential role in the education system. It was dynamic and not static; it was made up of different stages. The fundamental goal of building a good curriculum was to develop students physically and mentally. The curriculum consists of four Vedas, six vedangas, Upnishads, darshanas, Puranas, Tarka Shastra. The six vedangas were Shiksha, Chhandas, Vyakarana, Nirukta, Jyotisha, and Kalpawhile the darshanas were Nyaya, Baiseshika, Yoga, Vedanta, Sankhya, Mimasa. Algebra, Geometry, and grammar were also given more importance at that time. Panini was famous in the domain of grammar at that time. The curriculum of the Buddhist system consists of pitakas, Abhidharma, and sutras. Besides this medicine, Vedas were also given importance. Hindu learning was a part of Buddhist learning, although more emphasis was given to Buddhist learning. Both the systems were going hand in hand at that time. The education was totally through orals and debates, and the exams were conducted every year. The education system of the ancient period focused on subjects like warfare, military, politics, religion.

2.4 Methods of learning

The teachers at that time paid special focus to their students and teach them according to their knowledge and skill level. Teaching was basically via orals and debates, and the different methods were as follows:

- At that time books were not there, so students had the habit to learn and memorize all the things taught in the class, and teachers also helped them in memorizing.

- The students used to deep dive into the concepts taught by their teachers and explore new methods to learn it.

- Listening, Contemplation, and concentrated contemplation were some new methods of exploring the way of learning.

- The teachers used the storytelling methods to teach the students.

- Students used to ask questions about the topics taught by the teachers and these topics were discussed and then answered to the students.

- The education of that time mainly focused on practical knowledge of the topics taught in the class.

- The students got plenty of knowledge through seminars and debates conducted at frequent intervals.

2.5 Educational institutions

Gurukul was the hometown of teachers where students come after completing their initiation ceremony and learn until the completion of their study. The parishads or academies were the places of higher learning and education where students learn through discussions and debates. Goshti or conferences were the places where the kings of the states used to invite scholars from every institute to meet and exchange their views. Ashramas or hermitages were the other learning centers where students from various parts of the country used to come and learn from saints and sages. Vidyapeeth was the place of spiritual learning founded by great Acharya, Sri Shankara in places like Sringeri, Kanchi, Dwarka, and Puri, etc. Agraharas was an institution of Brahmins in villages where they used to teach. Viharas were the educational institutions founded by Buddhists where the students were taught the subjects related to Buddhism and philosophy.

2.6 Higher educational institutions

1. *Takshashila or Taxila:* Takshashila was the famous center of learning, including religion and teaching of Buddhism in ancient times. It was famous for his higher education learning comprising of subjects like ancient scriptures, law, medicine, sociology, astronomy, military science, and 18 silpas, etc. The well-known scholars from the university were great grammarian Panini, he was an expert in his subject of grammar and published his work on Ashtadhyayi, Chanakya who is skilled in statecraft both studied here. Students from Kashi, Kosala, Magadha, and also from different countries flocked into the university despite a long and arduous journey. Takshashila was an ancient Indian city currently situated in north-western Pakistan was the well-known center of learning and has been declared as an archeological site and world heritage by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 1980.

2. *Nalanda:* When Xuan Zang came to Nalanda it was called Nala, which was the center of learning in many subjects. The students used to come here from different parts of the country and the world to study here. Different subjects were taught, including the Vedas, fine arts, medicine, mathematics, and astronomy. Xuan Zang itself became the student of Yogashastra. Nalanda which is currently situated in Rajgir, Bihar, India was also declared as a world heritage site by UNESCO. The other famous institutes around ancient times were Vallabhi, Vikramshila, Ujjain, and Benaras.

2.7 Advantages

- The system focuses on the all-round development of students.

- More emphasis was given to practical knowledge rather than theoretical knowledge.

- The students were not just involved in bringing the ranks, but their main focus was on knowledge.
- Classrooms were built-in forests which provide a pleasant study environment to the students.
- There was no pressure laid on students related to studies so that they can learn effectively.
- The government did not interfere with the formation of curriculum, kings at that time helped in the development of education.

2.8 Disadvantages

- Women were not admitted to the Gurukuls.
- There was caste discrimination as only Kshatriya was allowed, Eklavya was not given admission to the Gurukul.

3. Medieval education

During the eighth century Anno Domini (A.D) a huge number of Mohammadian invaded India. Mahmud Ghaznavi captured India and set up a large number of schools and libraries in the country by the looted wealth. Later Muslim leaders established their permanent empire in India, they brought a new system of education. The ancient education system was drastically changed. The Arabs and the Turks bought some new cultures, traditions, and institutions in India, in that the most remarkable change was the Islamic pattern of education which was different from the Buddhist and Brahmanic education system. The medieval age, education system primarily focused on the Islamic and Mughal System.

3.1 Aim of education

The main objective of education during the medieval period was the spread of knowledge and the propagation of Islam. The objective behind this era of education was to spread Islamic education its principles, and social conventions. The purpose of the education system was to make people religious minded [4].

3.2 Characteristics of education

The rulers helped in the spread and development of education. They helped in the establishment of different educational institutes and funded it, big landlords also gave them some wealth in the development of institutes. There was no control of rulers over the educational institutes and also to their management. The student-teacher relation was also good like the Buddhist and Brahmanic period, although students did not live with their teachers at that time. Teachers took interest in learning, at that time teachers were used to teaching students individually.

3.3 Curriculum

During that time books were not there, therefore the students were used to write on taktis. The stress was laid on teaching the student from the beginning

that is teaching them first alphabets and then words. Calligraphy and grammar were the most important subjects taught during those days. Students also learned "paharas"(multiple of numbers), and also they memorized it while learning. Arabic and Persian were the main languages of communication and these languages were important for the students who wanted to get higher posts. The recitation of the Quran was made compulsory, the students used to learn the Quran by heart as this was an important part of their curriculum. The students at their early ages were taught to recite the first 13 chapters of the Quran as a poem. Ibn Sina, an Islamic Persian scholar, and a teacher write that students during the age of 14 should be given the choice of selecting their favorite subjects for masters, for example, reading, manual skills, literature, medicine, geometry, trade, and commerce. There were two types of education during medieval times like secular and religious education. Religious education consists study of the Quran, Mohammad, and his invasions Islamic laws and Islamic history. The secular education consists of the study of Arabic literature, grammar, history, philosophy, mathematics, geography, politics, economics, Greek language, and agriculture.

3.4 Methods of learning

- Orals, discussions, and recitations of the lesson taught were the main methods of learning at that age.
- Emperor Akbar encouraged the students to focus more on reading and writing and to reform the scripts. He wanted the education system to be systematic and advised teachers to first teach students about the knowledge of alphabets, then words-knowledge, and then sentence formation.
- More emphasis was given on practical education.
- There was no half-yearly or annual examination fixed for students, but the students were evaluated based on practical situations of life.

3.5 Educational institutions

Maktabs:-Maktabs were the center of the primary education for the children of general people. Along with religious education, students were also taught subjects like reading, writing, and arithmetic. They were also taught some romantic literature of Persian example, Laila-Majnu, Yusuf-Julekha, etc. Along with practical education, letter writing applications, and accountancy were also taught in Maktabs.

Madrasas:- After completing the primary education in Maktabs, the students were sent to the Madarsas for higher education. Madarsas were the centers of higher learning and Emperor Akbar did remarkable development in the education of the medieval era. Along with religious and practical education, Akbar stopped the tradition of the Islamic religion and instructed to teach Hinduism and philosophy in many Madrasas. The subjects such as medicine, history, geography, economics, political science, astrology, philosophy, and mathematics were taught in Madarsas. Akbar made subjects like Vedanta, Jurisprudence, and Patanjali compulsory for Sanskrit students.

3.6 Important educational centers

1. *Delhi:* Nasiruddin established Madarsa -i-Nasiria under the reign of the Shiraz Allauddin Khilji and established many Madarsas with renowned

teachers in them. Mughal emperor Humayun established many big institutions of astronomy and geography in Delhi. He also introduced institutions where subjects like Arabic, Persian, Grammar, Philosophy, and Astronomy was taught.

2. *Agra:* Sikandar Lodi established many Madarsas and Maktabs in Agra and attracted many students from other countries to come and study. Akbar made Agra the center of culture, fine arts, and crafts.

3. *Jaunpur:* Sher Shah Suri completed his education in one of the educational institutes of Jaunpur city. The main subjects of teaching were political science, warfare, history, and philosophy, Ibrahim Sharki set up many Madarsas in Jaunpur.

4. *Bidar:* Mohammad Gawan had established many Madarsas and Maktabs in this city and it became the famous center of learning. The city consists of a library that contains 3000 books on subjects like Islamic theology, culture, philosophy, medical science, astronomy, history, and agriculture.

3.7 Advantages

- Practical education was given more importance, students and teacher's relations were good. Students were taught from the basics and rulers also supported the development of education.

3.8 Disadvantages

- Religious and Islamic education was given more importance.
- The student aimed to focus on leadership for ruling the country.

4. Modern education

In the middle of the medieval age, the British invaded India and started to capture it. The modern education was introduced during the British empire. In the 1830s Lord Thomas Babington Macaulay introduced the English language. The subjects and the syllabus were limited to some extent, the main aim of modern education of the British was to spread Christianity. As time passed education started to develop and entered into the modern era that is in the twenty-first century, the era of science, technology, and innovations. And the demand and the need for education stills remain the same as it was in ancient and medieval times. In the modern era of science and technology, the industrial sector is increasing day by day. As demand increases our education sector also needs to change and adapt to that environment [5, 6].

4.1 Aim of education

The objective of modern education was to inculcate values in students such as equality, secularism, education for all, and environmental protection, etc. To understand the culture as well as people of our country, every student must be provided at least a minimum level of education and also to provide education to the people who cannot afford it, to prepare the students with the ever-increasing demands.

4.2 Characteristics of education

The student-teacher relations remained the same as it was in ancient and medieval, but students did not live in the teacher's house. As technology is increasing day by day, the education sector is also following the trend of technology by teaching the students through online lectures and Massive Open Online Course (MOOC). In Aviation and the medical sector, more emphasis is on practical knowledge as compared to other sectors. Women's education is giving more importance, and the Government has launched many programs to encourage women's education. In the modern era electronics gadgets like projectors, Light Emitting Diode (LED), and computers are used to teach the students. The Government has established many programs and there are many organizations that promote education in India.

4.3 Curriculum

The whole curriculum of a student is divided into three sections primary, secondary, and graduation. Primary education is from 1st to 10th standard, Secondary education is 11th and 12th, and in Graduation, students were given the choice to choose a field for further studies example computer, electrical, civil, etc. But after secondary education students also have choices to choose their career path. In primary education, students are taught subjects like history, geography, mathematics, science, Hindi, and Marathi. The languages may differ from state to state. At the early stages, students were taught alphabets, poem recitation, word formation, etc. Different prayers, the National Anthem is also in the schools. Along with studies different sports and extracurricular activities are also conducted in schools to keep the students fit and for their all-round development. The pupils are assessed based on the term exams conducted at frequent intervals. In secondary education, students are given choices to choose from science and commerce. According to the student's choice, they were given an education. Secondary education is an advanced version of primary education. Pupils were assessed based on term examination. After secondary education, students were given entry to the universities through some entrance examination, according to their marks scored in entrance examination they are admitted to the universities. Pupils were assessed based on semester exams or in-sem exams.

- In modern education along with studies, the emphasis is given on extracurricular activities and sports for all-round development of students.

4.4 Methods of learning

- Students mostly learn concepts through online platforms like YouTube, Coursera, and Udemy.
- Students refer to the notes given by the teacher's side by side while learning online.
- During class hours doubts are solved through discussions, debates, etc.
- Pupils were assessed based on mid-sem written exams and practical exams to check their practical knowledge.

4.5 Educational institutions

1. *Schools:* Schools are the educational institutes where children are sent for their primary education. There are many private and government schools situated

in India, primary education means education from Nursery to 10th standard. Children at their early ages are sent to schools to learn poems, grammar, prayers, alphabets, etc. besides this, the other subjects taught in the schools are English, mathematics, science, history, geography, and other regional languages. Schools are situated inside the city, also there are many cultural programs and sports events conducted in schools for the students to develop their interpersonal and physical skills. Private schools are run by organizations and the principal manages the academics and cultural activities in schools.

2. *Colleges:* After completing primary education from schools, students are sent to colleges for secondary education. After primary education, students are required to give entrance exams to take entry into colleges and according to the marks scored in entrance exams students are allotted colleges. In some states, during college, they are advised to choose a stream from science and commerce and then further carry on their secondary education. College education consists of 11th and 12th standard. Different subjects taught in secondary education according to their streams are physics, chemistry, geometry, algebra, accounts, and many other regional languages.

3. *University*: After the secondary education, students are required to give the entrance exams like Joint Engineering Entrance (JEE) and other state-level exams to take admissions in universities. Students are given choices to choose a stream like a computer, electronics, civil, and Mechanical and then start their career in it. The University provides undergraduate and postgraduate course comprising of course duration of 4 and 3 years, different universities in India are Savitribai Phule Pune University, Mumbai University, and many other aided non-aided and private universities. There are many cultural and sports events conducted in universities for giving students some time to joy and relax from studies.

4.6 Higher educational institutions

1. *Indian Institute of Technology:* It is one of the greatest universities in India for higher education like undergraduate, postgraduation, and many more streams. There is a total of 23 IIT colleges in India, every year lakhs of students compete to take admissions in these IIT's. JEE-Mains and JEE-Advance are the two entrance examinations to take admission in these IIT's, according to the All India Rank (AIR) and marks students are allotted IIT's. Due to its high level of educational teaching and curriculum, IIT is famous all around the world.

The other top universities are Birla Institute of Technology and Science (BITS), National Institute of Technology (NIT), Indian Institute of Science (IISC).

4.7 Advantages

- Use of technology in learning, students is learning free-lancing and many other new technologies.

- Many programs and missions have started to increase the employment of India.

- Top class universities and colleges with good infrastructure and environment.

4.8 Disadvantages

- Interference of government in education, management, and syllabus.
- Lack of quality teaching as well as the environment in government schools and colleges.
- Increase in fees of schools and colleges of private institutes.
- Lack of practical knowledge orientation.
- Due to the increase in fees, the family, which is below the poverty line cannot afford education and hence there is an increase in the number of laborers in India.
- Lack of connectivity of the students who lived in rural areas.

5. Conclusion

In the modern era, industries and technology are increasing day by day. Every industry sector is looking for a person who best suits their industry. With the ever-increasing demand for industrial sectors, our current education system also needs to be upgraded. In universities, students are learning just for competing with each other to come first, no practical knowledge is gained. There is a lot of pressure and burden of work and studies on them, due to this student are committing suicide. Our education system needs to learn from ancient and medieval education system regarding the implementation of practical knowledge, student-teacher relations, ways of life student lived in that age, the contribution of kings towards the education, there was no stress laid on students and much more. The future of industries and commercial sectors will be very tough and ever demanding, so our government has to provide such an education system which will bring all-round development in students and make them future-ready and also teach them to live in any critical situation.

Conflict of interest

The authors declare that there is no 'conflict of interest'.

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