

## **National Education: Lessons from Lokmanya**

Lokmanya Tilak was called the 'architect of Indian nationalism'. Mahatma Gandhi fondly administered the title of 'Maker of Modern India' on Lokmanya.

Even after close to a century now, Tilak's legacy continues to thrive in the hearts and minds of millions of people. The newspaper, Kesari, started by him, is still published, as a daily instead of a weekly, and is still very popular and influential in shaping today's Maharashtra.

Lokmanya Tilak inspired Indians by proposing that India should build its future on four strong pillars, namely swarajya, swadeshi, boycott and national education.

First let's reflect upon the visionary thoughts that Tilak had on national education. Tilak had emphasized four pillars on which national education agenda will have to be built. The first was religion's education, which was necessary for young Indians to become knowledgeable about their spiritual heritage, which, then would inspire them to build up their own characters. The second was education in vernacular languages, since Tilak felt that this would lighten the load of foreign languages. The third was industrial education, which would help India become independent from foreign controlled industries. The fourth was political education that would raise the nation's consciousness of its situation.

The national education had at its core, the founding of national schools throughout the country, including villages, which would be independent of the British Government. These schools were to use their own text books.

National education, in a way, was meant to induce a sense of patriotism on one hand and shaking off the chains of foreign subjugation on the other. For Tilak, the concept, therefore, went far beyond the periphery of an academic institution.

Context decides the content. For India, the context has changed dramatically. In this essay, therefore, we will focus on the issue of national education, especially in the new context in which new India will have to be built in the 21<sup>st</sup> Century.

More specifically, this essay is inspired by the lessons that we can learn from Lokmanya's journey as a student and as a teacher. Let's remember that Tilak was an extraordinarily brilliant student. He was a teacher to the core. This essay is also a view from my personal lens, my personal experiences.

### **Lokmanya as a student:**

Youth represents the national strength, vitality and vigour. Yuvashakti is the real shakti of the nation. If properly moulded, the youth can become the champion of our culture, custodian of our national pride and a trustee of the freedom of the country. But, the process of such moulding requires the right education at an early age.

Child centered education is the essence of early education, which lays the foundation for the future of any individual. So let's look at Tilak as a child and then him as a young student.

Lokmanya Tilak's early childhood showed that he was a rare child prodigy. His courage of conviction and independence of mind showed up so early in his life. Such children are not born every day. One in hundred, may be even one in thousand children have such traits.

It was in 1861 that Tilak entered school. By the time he had his thread ceremony, he was already adept at numbers. He could do the most complex calculations mentally. He could recite many mantras and most of the Amarkosh. In fact at the age of three itself, Tilak had started learning a Sanskrit shlok a day. Interestingly, he was incentivized with one pai per shlok that he could recite!

In 1866, Tilak went to Poona (now Pune) with his parents and completed three grades in two years. In 1869, when he went to the high school, he had already finished studying most of the syllabus of the previous years! So Tilak was always ahead of his time from his childhood.

Tilak's brightness in school showed up again and again. For instance, there were three ways in which he managed to write the word "sant" in Marathi. Every other student had only two ways of writing it. But the teacher perceived this show of Tilak's original and independent mind as arrogance and insubordination. The teacher did not like it. He was taken to the headmaster, who himself did not find anything wrong with it, but decided to punish him. It is strange that the teacher had found a questioning student a challenge to his authority. Tilak dropped out of that school and tried out another school. He returned to the earlier school only after the headmaster was transferred.

Tilak's independence showed up in everything he did. Once, in the high school, when the teacher taught poetry, the Naishadh Kavya, Tilak did not copy it. The teacher asked him as to why he didn't do it. Tilak answered that he thought that it would help him more, if he translated it by himself.

By the time he was fourteen, Tilak had developed a great command over Sanskrit and English. He could write poetry in Sanskrit. The foundations for his monumental scholarship with deep research ability were laid in his early life.

Tilak passed the matriculation examination in 1872 and joined the Deccan College for higher studies in 1873. As a student, Tilak always went to the root of the subject and studied it, reading a number of other books as reference. His aim was to understand a subject, not merely score marks.

When he had to study the lessons on the reign of Queen Mary and Elizabeth, Tilak went beyond the textbook and instead referred to many other books and wrote out a new

chapter on the subject entirely on his own. His work often served as reference to other students.

It is important to have inspiring Gurus in early life. Keruanna Chhatre was one such Guru that Tilak had met. Some of Tilak's teachers resented the questioning nature of Tilak. Then Tilak would often go to Chhatre to discuss the issues over which he had disagreements with his school teachers. Chhatre at times even gave astronomy lessons to him and his friends at night. This was said to have helped Tilak while writing The Orion. As homage to his Guru, Tilak completed some of Chhatre's unfinished work after his death.

Another professor, who also made an impact on Tilak was Professor William Wordsworth, an Englishman, who was the grandson of the famous poet of the same name. Professor Shoot was also another teacher who influenced Tilak. The former taught him English literature and the latter taught him history and political economy, which helped him to appreciate English ideas.

Tilak was influenced by the Western thought on politics and metaphysics. It is said that Tilak was particularly fond of Hegel, Kant, Spencer, Mill, Bentham, Voltaire, and Rousseau. He wrote in Geeta Rahasya, "To a certain extent my line of argument runs parallel to the line of thinking followed by Green in his book on Ethics." This ability to assimilate thoughts and teachings from other cultures is something that Tilak's open mind could achieve so easily.

### **Some Lessons from Lokmanya as a student**

First, Tilak had developed a questioning attitude, wherein he challenged his teachers. We must encourage that spirit of questioning and irreverence.

In my book 'Reinventing India', while making a commentary on the current school education, I have said "Questioning and dissent in the classroom and at home must be

respected and not punished.” To the contrary, as mentioned earlier, Tilak was punished in his times. It is pertinent to ask as to what extent questioning is encouraged by teachers in schools and parents at home.

Second, the children must be allowed to find multiple answers to a single question (like Tilak used to do). Today every question is supposed have just one correct answer. If the student writes that, then only the student will get marks, otherwise not. We have to change this.

Thirdly, like Tilak did, children must adapt ‘learning by discovery’ and ‘learning by doing’ rather than ‘learning by rote’. Around a given lesson, they must explore the world around.

I am happy to see in that sense the English text book that is currently prescribed for the 10<sup>th</sup> standard by the S.S.C. Board of State of Maharashtra. There is a lesson on my life in that text book. At the end of the lesson, there are many innovative exercises. They are built around asking the students to explore about the Royal Society of London by visiting their website. Another exercise gives the titles from the chapters from my book ‘Reinventing India’. The exercise is to perform a group discussion on what those titles mean, and what the content of the chapter could be. Such exploration is truly the ‘Tilak way’ of exploration --- not just seeking marks, but seeking new knowledge. One would like to see more such innovation in education.

Fourth, for child prodigies like Tilak, special paths must be found so that they can reach their potential. The news has just come that an eleven year boy from Nagpur, Akhilesh Chandorkar, has an IQ level of 160 that is mind boggling. This is claimed to be Albert Einstein and Stephen Hawking’s score. The letter from Mensa, a global society of people with high IQ, confirmed that Akhilesh was now part of the top 2% of people in the world in terms of intelligence. He has been invited to be a member of the intellectually elite society. Akhilesh has said that he wants to be an astronomer and he is already working on a theory about black holes. Once again such children cannot be treated like any other,

and especially in our current schools, where extraordinary talent is not distinguished from ordinary and one size is made to fit all. We must set up systems that can differentiate.

### **Tilak's questioning attitude and Indian science education**

I firmly believe that our young students must develop a questioning attitude like Tilak. So I will elaborate my thoughts further on this subject. Sometimes such questioning by students may show up as 'irreverence' for the teachers and elderly. However, respectfully questioning the elders, when differing with them, should be a norm rather than an exception.

I had expressed my thoughts on this issue in an invited guest editorial that I had written in one of world's top scientific research journal called 'Science'. Let me recount those thoughts.

The Nobel laureate Richard Feynman had famously said, "The difficulty with science is often not with the new ideas, but in escaping the old ones. A certain amount of irreverence is essential for creative pursuit in science."

Irreverence is sadly missing from Indian science today. The ability to question the present in science to create the future science is the key to advancing scientific knowledge. But that questioning attitude that is present in the "argumentative India", as the Nobel laureate Amartya Sen puts it, is missing when it comes to Indian science.

Fundamentally, may be it arises from the Indian culture and tradition. The ancient saying 'Babavakyam pramanam' means 'the words of the elders are the ultimate truth'. It advocates total intolerance against irreverence!

The Indian educational system, which is text book centered rather than child centered, begins by killing the questioning attitude at an early age. The rigid unimaginative curricula and examinations based on single correct answer cement this further. Bureaucracy

inherited from the time of British rule still continues. It ensures that paper becomes more important than people.

Let me come to the point about de-bureaucratization.

On 3<sup>rd</sup> of January every year, thousands of Indian scientists have been witnessing the inauguration of the Indian Science Congress by successive Prime Ministers of India. On 3 January 2001, Prime Minister Vajpayee said, “For Indian science to flourish, the administration and government officials should serve as facilitators of science and not as masters of scientists.” On 3 January 2010, Prime Minister Singh lamented “It is unfortunately true that red tape, political interference and lack of proper recognition of good work have all contributed to a regression in Indian science.” On 3 January 2014, Prime Minister Narendra Modi said “funding proposals must not take too long to clear, meeting application requirement should not become more complex than research....” And then he went on to make a powerful statement “we want our scientists to explore the mysteries of science, not of government procedures.”

There is no doubt that our top leadership is fully committed to removing bureaucracy from our education and research institutions. Indian science, education and research is crying out for de-bureaucratization so that the spirit of risk taking and adventure can be fostered. The nation must move ahead on this with a sense of urgency so that students with the spirit of young Tilak will have a chance to reach their true potential and not get hampered by the bureaucracy.

### **Reinventing Indian science education and research**

I was the President of Indian Science Congress that was held in Pune on 3 January 2000. In my Presidential speech, I had proposed a ‘New Panchsheel for the New Millennium’. One of the Panchsheel was child centered education. My thoughts, the gist of which is caught below, remain the same even today.

The way science is taught in our schools will determine as to whether or not we will have a society, which is capable of developing and absorbing technology creatively as well as giving a scientific foundation to our cultural, political and economic fabric. There are three crisis that we face today. The first is that young minds are not turning to science, to an extent that some science departments are getting closed down. The second is that those who turn to science do not stay in science. The third is in science education itself. We find that our education has not been child centered, it is centered around text books, rigid unimaginative curricula, ill designed class room teaching and an outdated examination system.

The curricula must relate closely to science and technology experiences of everyday life. Our students must not only love science but they must live science. To achieve this, we must create of a local content in the education, through exposure to local flora and fauna, local water and soil, local socio-economic issues, local heritage, etc. This simple initiative can give a whole range of new dimension to the teaching of botany, chemistry, history, etc.

Specifically with respect to science, it is often asked as to why is it that no Indian scientist has won a Nobel Prize for science done in India, excepting for Sir C.V. Raman. I have written a paper titled `what will it take a resident Indian to win a Nobel Prize'. This paper tries to provide some answers to this question.

Indian scientists and institutions are risk averse. We must take risks. We must be more tolerant of failures. A certain amount of irreverence is essential for creative pursuit in science. True path breakers in science will refuse to preserve the status quo because they enjoy the fun of creation of new ideas and destruction of old dogmas. We need to identify and support scientists with such quality to the hilt.

A potential Einstein or a Ramanujan will have to be identified and nurtured from early on. Our current research funding pattern, which is too conservative and democratic, needs to change. Out of the box thinking needs to be done not only by scientists but



also by those who manage science!

### **Value Based Education**

As a core of Tilak's national education agenda, one finds a great emphasis on the Indian heritage, its culture and its values. This emphasis should be even stronger today with the challenge of globalisation. So today's Indian education must be 'value based education'.

We are living in an increasingly globalising environment. We are told that Asia will be the focus of development in the new millennium and India will be one of the lead players in this process. From all accounts it appears to be true.

India is not a poor country but it is a rich country with lots of poor people. India has the potential to become a land of splendid opportunities if only the human resources are properly developed and a disciplined work culture is cultivated. Our problems are corruption, reluctance to work hard and lack of scientific temper. If education can help overcome these handicaps, we can eradicate poverty from this land and provide opportunities for every citizen to develop to his or her full potential. This is where values become important in education and in personality development.

Today the society in general and the youth in particular are passing through a state, which portends danger for the future. Education should condition the mind to enable individuals to function effectively and to have a fulfilling life. In a situation in which children spend less and less time with parents and are bombarded with quick fix solutions for every problem through an aggressive media culture, it is important that our educational institutions devise ways to promote ethical choices to the educated persons who are expected to be thinking individuals.

Values become important for an educated person in the context of the emerging forces of globalisation converting everything to the naked fury of the market forces. Knowledge bereft of values can be dangerous. Look at the way organized crime, financial frauds and

terrorist violence (including the recent one in Bangladesh) are being perpetrated by some of the best minds endowed with the best of educational and technical attainments.

The need for value based education is central to all forms of education; but there are differences of opinion among teachers and educational administrators on how to organise it in the curriculum. The result is that it is not attempted at all and is left to an individual's judgment based on one's own perception and experience. This is not a happy situation especially in a multicultural, multi-religious and multi-ethnic society like ours. Education must enable individuals to be accommodative of differences and lead people to renounce violence and resolve disputes through socially acceptable ways.

### **Finally**

Tilak's visionary thinking was reflected nicely in his statement 'material, spiritual and religious development of underdeveloped nations can be achieved only through education'. Therefore, Indian education needs to be reinvented today to imbibe these thoughts of Lokmanya, while building our future not only through right to education, but also right education.