CHAPTER VIII
EDUCATIONAL IDEAS AND IDEALS
(A) A National System:

Swami Dayananda, the founder of the Arya Samaj expounded the educational principle in great detail in his *Satyarth Prakash* (chapter 2 first published in 1873). (i) Compulsory and free education in Brahmacharya Ashram at least up to the age of 25. (ii) Equal opportunities of development to all persons, irrespective of caste, creeds, colour, sex or family status. (iii) Responsibility for providing education has to be taken up by the state.

With this guideline the Maharishi envisaged a revival of the institutions of Varanashram which was the foundation of ancient Indian culture. It is the pleasant duty of parents and gaurdians to give sound education to the parents so that the children can increase the productivity and wealth of the country. He spoke sights of vedic system.

Child Education:

He wanted every child to grow into a missionary, pleading his life to either of the 3 missions (a) fight against poverty, (b) fight against injustice and (c) fight against ignorance. At the age of 8, boys and girls should be sent to their schools. The instructor of that school must be a person of moral character and virtuous. The twice born after due perfomance of Yajnopavit Sanskar of their children should send them to the school with good teachers. The school should be 8 miles away from the noise of towns and cities. The schools meant for the girls should be of a distance of 3 or 4 miles from those meant far boys. The teachers in girl school should be female, and servants of the same sex. The teachers in the boys institutions should be male. The opposite sex does not mix up and should not indulge in sexual thoughts and objects. The psychological differences and the stages of growth are clearly spoken by the Swami. 8 kinds of sexual connection-to see each other, to be along with each other, talking with each other, to indulge in sex exiting talk, to harbour lust-exiting and to unshare each other embraces, etc.
By doing so they could gain strength bodily and mental happiness. In matter of food, drink dress and accommodation the prince and the common boy must be the same. All should be made to practise mental and physical discipline, simple living and high thinking. Visit to home during their period of study must be allowed. The correspondence with parents will serve the purpose. They are entrusted to the care of the tutors in all their recreations for their moral and spiritual qualities. They should under no circumstances be guilty of negligence and idleness. To quote Manu as a rule “both state and society should make it compulsory for all parents to send their children to school after 5th or the most 8th years. It should be made a penal offence to kept a child at home after that age”.

Gayatri Mantra:

Gayatri mantra with is significance should be taught at the beginning. This will be followed by methods of divine worship comprising (i) bathing to ensure good health, (ii) Achman-filling the palm of the hand with water and sipping it with long breath in order to relieve irritation or dryness if any, (iii) Marjana - to sprinkle water with the points of middles and ring finger or the lips, noses, ears, shoulders and knees to remove drowsiness.

Sadhya Upasana - Yoga shastra defines it as the breathing which burns off all impurities of the soul. It had the soul to emancipations with Pranyam Aum should be completed. It helps concentration. It increases the reproductive elements in the body and intellect.

1. Agham marshan - Repentence and practicing aloofness from the sin.
2. Manasapari Krama - Mental rotation i.e. turning ones mind in all directions and feeling the presence of God.
3. Upasthana - To realise God as the source of light life and knowledge.
4. Stuti - Glorification of God, i.e. parthana, upasana and communion with God.

Sadhya Upasana - To be performed in a lonely places for keeping the concentration of mind intact, it is the healthy proxis of Hindus of all sects and schools with some variations.
Agnihotra :

The second daily duty is the performance of Agnihotra twice at sun rise and sun set with ghee and samagri for purification of air in order to help the health in breathing. It is the fire that breaks up the impurities of the air and replaces it with the fragrant smell of the ghee and samagri burnt in it. The idea is that butter eaten by an individual benefits the eater alone but burnt it with samagri in Havan in inhaled with this air and benefits all equally without any distinction. In ancient times all kinds of people, Saints and Sages, rich and poor, spent a large amount of their earning.

By doing so the general health of the people was free from disease and life was happy. This is his reply to Sir Syad Ahmad Khan who asked him how a havan (oblation) could purify the atmosphere. Swami Ji gave an example of the cooked pulses which became fragrant being cooked. The moral and religious character of the student was powerfully stimulated by this way. All rites were regularly performed in the morning and evening.

Grades of Brahmacharya :

1. The lowest - The body is made of matter composed of elements described from foods and drinks. It lives in the body. The body is likened to a Yajna which is performed without break in it. Pure Yajna is to be performed regularly for the sake of health, long life and wisdom and noble qualities up to the age of 24 years passion will be controlled for the way of thought, memory and personally.

2. The Higher - This stage Brahmacharya continues up to 44 years, so that one may strike terror to the wicked and provide asylum to the good and the poor.

3. The Highest - It is but observance of Brahmacharya up to 48 years by virtue of which one acquires full knowledge, strength, wisdom and development of qualities, character and nature.
Swamiji anticipated 4 steps of human body like the singing of the poets and modern Psychology. They are :

(i) Adolescence - 16 to 25 years, (ii) Manhood - 25 to 40 years, (iii) Maturity - above 40 years, when tissues, organs and glands reach the perfect stage upto 50 years, (iv) Loss - Excess of secretions after 50 years as the reproductive elements begin to decrease in sleep and perspiration.

Reference to good conduct, character formation, practice of Yamas and Niyams and performance of 5 daily duties and Yajna has been made in ch. III in connection with social philosophy and Yoga and mysticism of Swamiji.

3. Parents Role - Education of the child starts with the mother. It is for her to teach her child to pronounce different latters in the right voice with the amount of efforts of the mouth, lips and tongue. This is to be supplemented by the teacher in later age. The teacher should teach short grammar, book of roots, groups, prefix, suffix and last of all higher languages. Grammar is the root cause of all subjects and languages, which are inexhaustible. Nobody can steal it and no one can inherit it and nobody can harm it. It is obligatory on the part of the state and society to enforce this type of education and augment it.

Course of study as prescribed by Swamiji :

In chapter III of Satyartha Prakash, Swamiji has dealt with the courses which extends over thirty or thirty-one years :

Ashtadhyayi - To be completed in half year.
Mahabhashya - One and half years.
Nirukta of Yasksha - 6 to 8 months.
Penjal Chhanda Sutra - 4 months.
Manu Smriti, Ramayana, Mahabharata, Viderriti - 1 year.
The six philosophical system (orthodox) and 10 Upanishads - 2 years.
All the four Brahmansas and 4 Vedas - 6 years.
After this, the student is to complete his study of Medical Science in 4 years and that of Military and Political Science 2 years, Music, Science, Economics are to be mastered in 3 to 4 years. The works whose culture and study are to be banned viz, *Katantra, Saraswata, Chandrika, Mangalabodh, Kaumudi Sekhar, Manorama*, Grammar (*Amarkosh*), etc. (books of reference), *Uttararatanakar*, etc. (prosody), Shiksa, as Panini teaches, *Singhra-badha, Mupurta-chintamani* etc. (astronomy), *Navikheda, Ketavalayamanda, Raghuvansha, Magh, Kiratasujena* etc., (Mimamsa), Tarak sagharsa (Nyaya-Vsishshika), *Jagadishi* etc. (Nyay Logic), *Hathspirdipika* (yoga), *Sankhya tottra Kaumudi*, etc. (sankhya) *Yogavasishtha, Panchadashi*, etc (Vedanta) *Sharangdha* (Medicine).

With the exception of *Maitu Smriti* (Manus the spurious stokas) all the smriti, Tantra works, the Puranas, the up-puranas and works like Tulsi Das's *Ramayana* are to be ignored. He made strong pleadings on the authority of the *Vedas* that women and shudras and even those that are below them are the social status have got the right to study the *Vedas*.

**Role of state and society:**

According to Swamiji, it is obligatory for the state or society to impose the system on all parents so that they can send their children to school at the right age and continue their studies till they are thoroughly well trained. Penalties must be prescribed for the law breakers. Let no child be allowed to study at home. Marriage must be prohibited during the time of education. Education is the best of all gifts of nature and man. Education is made better with the observance of Brahmacharya and the study of the *Vedas*. 
The System after Swamijis Death:

Swamiji died before the realisation of his dream. His followers established educational institutions after his ideals. One of the principles of the Arya Samaj sums up its broad educational aims. It says “Ignorance must be dispelled and knowledge diffused” A draft scheme based on ideal of national education circulated in 1885 contained the objective. The first Dayananda Anglo-Vedic College was established in 1886. Several D.A.V. Schools and Colleges were also opened in the Punjab and U.P. A revolutionary chapter was added by opening schools and colleges of girls also as in those days except the missionary schools.

In course of time the D.A.V. Schools and colleges lost their special character and were similar to other institutions, teachings the course prescribed by the examining bodies. It is the Guru Kula at Kangri (U.P.) founded by Munshi ram (later Swami Shraddhananda) which maintained character of its own. Didney Webb who visited Gurukul was impressed by this school within 10 years of its foundation was impressed by the fact that caste distinctions were completely abolished. It has grown into a full fledged University with grant from the Government.

The best of the western sciences were taught side by side. It has a well developed science section also. Hindi as the medium of instruction was an important feature and was essential for a sound Education. Its impact on the natural character reveal some interesting features.

Hindi as the Medium of Instruction and The National Language:

Swamiji was the first to propogate Hindi langauge. The British Indian system did not pay proper thought for langauge of Indians. Swamiji wrote books in Hindi and not in his mother tounge, Gujarati.
He also spoke in Hindi and delivered lectures in Hindi. He anticipated it as the national language of India. To quote his own words "Hindi is easy enough and melliferous to be learnt in a few days. He must be a super idler and shirker who cannot put in the small effort to learnt it. I belong to see a day when Hindi would flourish in the four corners of the country. That is why all my writings are in Hindi".

(B) *Veda* and Modern Science-Dayananda’s Observation:

According to Swami Dayananda the word *Veda* means knowledge-God’s knowledge-pure and perfect. It is the fountain head of science and religion for all mankind. He developed the theory that all the science or all religions have their revealed source in other *Vedas* in the early literature. He is familiar with all branches of vedic literature. He was all rounder of social, political, spiritual, religious and yogic knowledge. He studies more than three thousand Sanskrit books from Brahma down to Jaimini. This was made by Dayananda in his small book "*Branti Nivaran*”. The *Vedas* are not of human composition; but they are revelation by Almighty. He observed further that no scripture can claim to be the revelation except the *Vedas*. The *Vedas* alone enjoy the supreme position.

All learning are found in the *Vedas*. This is provided by modern scholars and scientists. It follows automatically that the vedic religion is the universal religion. Anything against vedism is wrong, the human soul is knowledge-limited. No statement is true without the sanction of the *Vedas*.

He was an eye opener of the whole world whatever is found in the *Vedas* is not found in the epics, the *Bhagavata, Puranas, Quran* and the *Bible*. The *Vedas* contain medical Science, Mathematics, Military Science, Algebra, Geometry. He gave a true perspective of the *Veda*, to all the mankind. *Rigveda Bhasyabhumika* is the treasure of all this.
The ancient Arya knew that art and science whose smoke converted into clouds the moment they came in contact with air, the effect of sunlight on the glass. They knew from the Veda that some weapons discharge paralysed the limbs and stipulated the enemy. They knew the use of electricity. All knowledge that is extent in the world had their origin in the Veda. It spread to Egypt, then to Greece and the whole of Europe, to America and other countries. All sciences and religion found in the world can be traced to India.

Dayananada's approach is not scientific in the modern sense but is science oriented in the sense that he made use of the scholarship to show the presence of science in the Veda. Such attempt is of profound significance in the context of his attitude towards scriptural authority. Here are some Yajurveda ix. 6 says, "The earth as well the sun, the moon are revolving in space. This is the case with other globes also. Among them the earth along with the waters of the oceans, which are, as it use her mother, revolves round the sun i.e. mass of fire. Similarly, other said to be the mother and arī to be the father of the sun, and the fire is said to be the father and waters to the mother of the moon.".

The word Gow is one of the names of the earth. She moves on an on or because living being moves upon her. The sun is called Gow because he causes the vapours to move; or because he himself moves in space. Dyava is called Gow because it extends far and away from the earth or because the rays of light move in it.

The word gow is the name of the sun's rays, the moon and Gandharva also in the Veda. Svah is the name of the sun Niruktha. The earth is called Gow because it is in every minute in motion.
Rig viii, 2. 10. 1 says: - The said earth revolves round the sun in her orbit which has been fixed by God for her revolution. The earth suppiles the living being with abundant juices and fruits of various kinds and fulfills the fixed laws of her motion. She provides the performance of noble deeds, who give liberally, and the learned, with all their comforts by her bounty and she is indeed the cause of the audible of all living beings.

Rig, iv 4.13.3 teaches that the moon revolves round the earth. The moon whose nourishing properties are well known, revolves round the earth. In course of his journey she comes between the earth and sun. The meaning of the words Dyava Prithivi atantantha occurring in the verse says that, the sun and the earth are also in motion. It is thus established that all heavenly bodies are in motion.

On Gravitation and Attraction:

The purport of vedic verse tends to show all heavenly bodies are attracted by the sun and the sun along with other sphere is upheld by the attracting power of God. Rig vi 16.3 says the glorious and mighty Lord! when thou puttest forth they great attributes of strengh and prowess they uphold all the world according to the law at all times.

The glorious sun by putting forth his powerful rays which possess the properties of attraction, illumination and motion, keeps all the world in order through the force of his attraction and then verse, Rig vi, 1, 6, 4 and 5 give the same effect in the thiestic from. It has the effect of showing that the sun upholds the suns, etc.

The law of gravitation is proved beyond any trace of double that the self effulgent Lord (the Sun) upholds all the worlds and makes every thing visible and the distinct Yajur Veda XXXIII 43.
The sun attracts all the globes day and night, i.e. at every moment. Besides this all the globes possess this one power of gravitation; but God is the repository of infinite power of the attraction. Many verses in the Vedas which give the treatment of the power support and attraction.

By his interpretation of Atharva XIV 1.1 and 2 he proves that the sun and the moon do not possess and light of their own. The sun illuminates them.

Science of Mathematics:

It contains references to Jyotish (a limb of the Veda), astronomy, geometry and algebra, arithmetics deals with known, where as the Science of algebra with unknown and uncertain quantities. These verses suggest the algebra by suggesting the symbol a\(^3\)-b\(^3\) etc. Yajur XVIII 24 and 25.

The maximum saying that one act serve a double purpose, the marks of short and long vowels over the letters of the verse of Síma 1.1 points unmistakably to the science of algebra. Yajur XXIII 62 refers to the science of geometry. The Veda is to be made after the likeness of a Shyena bird or of different shapes triangular, quadrilateral, circular, etc. The purpose of making the vedic of various shapes into suggest geometrical science. The Yajna is the center, naval of the universe. A line running round the parts of the earth farthest from its centre is called the circumference. A line drawn from any points in the circumference and passing through the centre is called the diameter, or the middle line is geometry. All lines converse to meet in the centre. Similarly the other globe the moon, etc. have their circumference etc. The sun, heat, light, air have their required velocity. Their power in the shape of medicines is wide spread.
God is the measure of all. The world Paridhi “circumference” points to the geometric science. It is the subject matter of Jyotish shastra and astronomy.

On Art of building Ships and Aircraft:

Rig 1.8.8.3, says “A man desirous of possessing and enjoying wealth, riches, necessities of life, comforts and victory should fulfil his desires with the help of physical sciences. By constructing ships of wood, iron etc. and by using fire and air (for generating stream for propulsion) he many make voyages on the seas backwards and forwards and in this way, he may a mass wealth. Such a man never dies in want and without assets, for he has laboured as a man. Men should therefore spent all their efforts in building ship and boats for going and coming from one country to another by water. The ships are to be constructed with metals such as iron, copper, silver or with wood etc. and by the use of heat and light producing fire. These substance when properly used enable men to go from one country to another easy and comfort. In ships which carry men on their forward and return voyages on the sea should be strong and able to remain steady (on the waters). The officers of state and the merchants should voyage by means of ships whenever the emergencies of business might require it”.

It is clear from this that conveyances of many other kinds such as aerial cars, etc. can be constructed with the same materials and means. Men should acquire highest renown and splendor by constructing cars for travelling in the upper regions. Ships and boats should be made so smooth and polished that they become water-proof and water does not enter into them from outside. In this way let men travel in water in three regions i.e. on land by means of land vehicles, on water by means of water conveyances and in the air by means of aerial cars.
Rig 1.8.8.4 says - “The three kinds of cars the ships etc should be provided with means of comfort and they should be able to move as such a great speed that may cross the waterly ocean, The land the upper region in three days and three nights, rushing on their course. As if they were provided with innumerable feat. They should have six mechanisms, fire chambers for securing swift motion”.

Let men travel confortabley in three regions. These cars are to be made with the help of the ashvins. They alone can move the cars properly and they also are the principal means and helps in building such cars.

Men can enjoy the best comforts by acting in these ways but not otherwise.

Swamiji’s rationalism was antedated by his contact with western Ideas and rationalistic stream of Hindu philosophy, particularly of Samkhya and Nyaya. His visit to Calcutta contributed to his construction of idea of vedic Golden age. Raj Narayan Bose, leader of Adi Brahma Samaj and the pioneer of Hindu Nationalism controverted the claim of the utilitarians, Evangelicals and western concepts. It provided reason for the superiority of Hinduism including the political and economic science. Hinduism is compared to an ocean containing innumerable germs. Dayananda filled it out by including science and technology. There are reasons for this (i) He admired Scientific advance as a part of national welfare. He desired to found a technological institute with machines and even teachers from Germany. Secondly he had the knowledge of ancient texts on astronomy, medical science and magical fiction weaponry. All these elements contributed to his theory that the Vedas contained scientific and technological sophistication.
NOTES AND REFERENCES

(A) Educational Ideas and Ideals

3. Loc cit, Bawa Chhajju Singh, op cit, PP 149-150.
5. See footnote 3.
6. Durga Prasad, op cit, PP 65-71

(B) *Veda* and Modern Science-Swami Dayananda’s Observation

7. Ghasi Ram, *An Introduction to the commentary on the Rig and other Vedas* (english translation of *Rig-Vedaic Bhasya Bhuimika*) PP II-VI, PP 84-122. cf. The idea was challenged by Persons trained in western science. In spite of such views, the history of vedic period is rich with many an advanced, real contribution to the progress of human civilization.
8. Loc cit, Most of the quotations are from Ghasi Ram’s translation.