Chapter 2
Swami Vivekananda
on the Importance of Education
and a Scientific Attitude.
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Swami Vivekananda on the Importance of Education and a Scientific Attitude.

This chapter focuses on Swami Vivekananda's concept of education as necessary for the development of a scientific attitude, which is in turn necessary for the progress of man and society in general and of Indian society in particular.

1. Introduction:
According to Swami Vivekananda, it was possible to uplift Indian society from age-old afflictions, responsible for its degenerate conditions, through the process of education alone.

The type of education Swami Vivekananda considered most necessary for Indian society was 'man-making education', which would lead to nation-building. In Swamiji's point of view, this type of education had the capacity for the social regeneration of Indian society because it was supposed to have the potential of purging the human mind of mental decadence, that is, the tendency towards ignorance, laziness and a resigned attitude which accepts anything that is prescribed without personal reflection. The prevailing unscientific attitude had to be replaced by a scientific attitude, whose constituents were objectivity, rationality and a critical temper.

The afflictions of degradation and poverty, age-old starvation, ignorance, social disabilities like untouchability and inhuman practices associated with the practice of religion (like sati), and to add to all this, the lack of education, had pushed the ability of people to think independently and form rational judgements based
on a clear evaluation of social situations, far away into some dark background.

Without the inculcation of a critical, scientific attitude it was not possible to bring about the social and economic regeneration of Indian society that Swami Vivekananda was working for. In the absence of such a regeneration, Swamiji firmly believed, that the masses would not be able to realize the value of spirituality, which is the root and foundation of Indian culture. The path to spirituality lay through the amelioration of the social and material conditions of life. So to achieve this end Swamiji drew out a social philosophy from the Vedanta, which was both, dynamic and practical. Swamiji's vision of a new India was of one that was firmly rooted in spirituality but with all the attributes of a modern, progressing society. In the social context, to be rooted in spirituality, implied to be rooted in the humanitarian concern for the downtrodden, which translated into a dynamic practice, of renunciation of ego-centric tendencies and service to needy.

In the social context, the development of a scientific outlook, implies the development of a humanistic attitude which is impartial and free from the clutches of individual differences of caste, community, race, religion and nationality, and from dogmatic, irrational beliefs and practices.

It was Swamiji's profound conviction that such a development of the human self could be achieved through education, which involved the training of the physical and mental self with the aim of elevating both, to the highest spiritual level. Swamiji's concept of man-making education, thus, gives an extremely dignified, optimistic and realistic picture of the human personality.
2. **Literal Meaning of Education:**

The word 'education' has its origin in the Latin word 'educatum'. This word is composed of worlds 'E' and 'Duco'. 'E' implied a progress from inward to outward while 'Duco' means developing or progressing. In its most literal sense, therefore, education means becoming developed or progressing from inside to outside. Thus, education is the process of developing the inner abilities and powers of an individual. The term is also often connected with the Latin 'educere', meaning a propulsion from internal to the external. This Latin term means to educate through a change brought about by practice or usage. In this manner it can be said that education implies some kind of change for the better in the person.

In this sense, Swami Vivekananda's concept of education fulfils its literal meaning, in the sense that according to him the process of education is the manifestation of the dynamic spirituality within man.

Apart from this literal meaning, education can be referred to in two ways – narrow and liberal.

3. **Narrow Sense of Education:**

Most people use the term education to mean the training or studies undertaken for a certain span of time in some educational institution or institutions. It implies education provided according to a fixed curriculum by a particular set of people in a specific place. However, this education does not generate the qualities a person requires to achieve success in practical life. An individual still has much to learn. The advantage of this education is that it enables an individual to obtain a formal degree, which gets him a job or helps him build a career, by which he can sustain himself.
and his dependents. But simply the possession of a degree does not make a person educated. At the same time non-possession of any such degree should not imply that the person is uneducated.

4. **Liberal Sense of Education:**

This sense of education does not see it as confined to the classroom. It is not the prerogative of the teacher alone to provide education. It can be obtained from all individuals, even from nature. Considered from this standpoint, it can be said that the child imbibes education not only from his teacher, but also from the entire complexity of his environment, each object in which is a means of educating him.

With this definition of education, it must be granted that the subjects of education cannot be determined for they are far too numerous. Education comprehends all human individuals, of all sizes and ages, races and groups.

Education in both, narrow and liberal senses, is essential for a complete development of the individual. A formally educated individual is not necessarily better developed, but he is definitely better informed than the average uneducated person. Besides he develops the ability to imbibe education, as it is meant in its more liberal sense.

Also it would be worthwhile to consider the Western approach to education. Swamiji observed that the West was ahead of the world because of education. He was highly impressed by the quality of life in the West. He desired the same quality of life for the Indian masses and that is why he emphasized the need for education strongly.
5. **Western Approach to Education:**

In ancient Greece, Plato defined education as the process of developing desirable habits through which the child is attracted to good actions and good qualities. Plato interprets education in its most liberal sense. He assumes that the process of education is never-ending. Aristotle conceived education to be the creation of a healthy mind in a healthy body. Comenius (1592-1610), a famous educationist of the middle ages, declared education to be a process whereby an individual developed qualities relating to religion, knowledge and morality and thereby establishes his claim to be called a human being.

Thus, it can be said that education is the natural, harmonious and progressive development of man's innate powers, the complete development of individuality, so that he can make an original contribution to human life according to his best capacity.

6. **The Indian Approach to Education:**

The western approach to education has considered it as conducive to the development of good qualities and morality. The Indian approach goes beyond the moral sphere and includes the spiritual aspect of the development by education. In fact, Indian thinkers have placed special emphasis on this. Yajnavalkya had expressed that only education can give a sterling character to an individual and renders him useful for the world. Shankaracharya expressed that education is that which leads to salvation.

Some of the more recent educationists belonging to the period of social reform in Indian society have also stressed the importance of the spiritual aspect.
Mahatma Gandhi has said, that by education, he means an all-round drawing out of the best in child and man body, minds and spirit. Literacy is not the end of education, not even the beginning. It is one of the means whereby man and woman can be educated. Literacy in itself is not considered education.

Sri Aurobindo has said, that the chief aim of education should be to help the growing soul to draw out that in itself which is the best and make it perfect for a noble use.

Thus, the Western and Indian approaches make it clear that education is conceived as that which brings out the best in man. It makes him fit to live in human society. Man has the capacity to live at three levels. He can continue to live at the ordinary human level, wherein he is sometimes good and sometimes succumbs to fully, or he falls down to the level of the beast and lives a life of physical enjoyment, or he may rise above the ordinary human level and achieve moral and spiritual excellence. It becomes possible for man to enhance the value of his own existence and to contribute to his social environment when he is able to rise above the normal-level. Education helps man in achieving an elevated standard of living at the moral and spiritual levels. Education thus works to make man. Swamiji conceived of the value of education as that which leads to man-making – a comprehensive development of the human self of the mental, intellectual, moral and spiritual levels.

In his words on education Swamiji says – "The education that does not help the common mass of people to equip themselves for the struggle for life, which does not bring out strength of character, a spirit of philanthropy and the courage of a lion – is it worth the name?"
It can be said, that education is a process which helps in shaping, forming and moulding the behaviour of an individual. It involves the transmission of cultural values from generation to generation. Thus, it can be said regarding educational institutions, it is one of their main functions to socialize the individuals, so that they become useful members of a society and individual thinkers.

Education is imparted to young children through systematic instruction. Comparatively mature persons are imparted education through teaching in which there may be an intimate relation between the teacher and the taught. At the university level, where individuals become responsible students, education is imparted through lectures. The purposive aspect of human personality is developed through education. Plato mentioned that the aim of education was to discover the innate talents in individuals and to train them for social use. He also believed that education is not to put knowledge into the self, as Swamiji has said, that education was not the process of stuffing the brain, but as Plato has said, to bring forth the best talents which are latent in the soul.

Educational institutions are the key institutions of society. The ideals of a society can be ascertained through careful examination of its system of education. Educational institutions are the means through which new ideas can be transmitted to the young people. They are important agencies for bringing about social change. They oppose stringency of traditions and inculcate the habit of critical thinking in young people. In this way, they are instrumental in developing a rational, scientific attitude of the mind. Young students learn the method of causal analysis of complex problems in these institutions. They develop the scientific attitude through
systematic training. It can be said that educational institutions play a very important role in the cultural development of a society.

Educational institutions have great value in society because they enhance the intellectual aspects of human personalities. They provide a suitable atmosphere to growing individuals for expressing themselves creatively. The psychological importance of educational institutions consists in making individuals complete and integrated personalities. These institutions have philosophical importance, in the sense, that they are the centres from which culture radiates in society. They instil into growing individuals the value of intellectual adventure and aesthetic outlook on life. Persons learn to have reverence for life and appreciation for the values created by others under the salutary influence of creative education. It was this attitude of the mind that Swamiji has aspired to inculcate in Indian society through education. The ideal of one-world can be approximated only through creative education, because in such a system the distinctions of caste, creed, religion and the like are absent. In a progressive society educational institutions function as the guide of social institutions.

7. Swamiji's vision of man making education:
Swamiji strongly contended that man-making education had to be purposive and free from narrowly conceived objectives. Education should be for all and it should involve a continual growth of personality, steady development of character and the qualitative improvement of life. Education should not involve simply the stuffing of the brain, but the training of the mind.
"We want that education by which character is formed, strength of mind is increased, the intellect is expanded, and by which one can stand on one's own feet."3

Swamiji did not favour the idea that education should be examination oriented, preparing people for jobs. It should be training for life.

In Swamiji's words - "The end of all education should be man-making. The end and aim of all training is to make the man grow. The training by which the current and expression of will are brought under control and become fruitful is called education."4

This vision of education was in tune with the modern day requirement but in sharp contrast with the old system of Indian education.

8. Traditional System of Education:
The esoteric and metaphysical system of traditional education stood in sharp contrast to Swamiji's dynamic and all-embracing concept of education. This system was characterized by a rigid system, meant only for the upper classes or the twice-born castes. The structure of its professional organization was hereditary and closed. The roles of the teachers and students were qualitative-ascriptive. This system did not give recognition to merit. It can be said that the traditional structure of education was based on the staunch belief in the principle of hierarchy upheld by Hinduism. Accordingly, the innate moral and qualitative attributes of men were conceived of hierarchically i.e. in accordance to their birth in high or low castes. The men belonging to the higher castes were expected to be having a higher level of charismatic moral endowments in comparison to those of the lower levels. The concept of the hierarchy of
charismatic qualities in human nature gave rise to the non-
equalitarian attitude towards the lower castes. Thus, a guru or
teacher had to be a brahmin by caste.

This kind of a closed social order especially in the field of education,
made Swamiji's consciousness revolt. This order was against the
innate human tendency towards freedom and the free development
of the human personality according to one's aptitude. It degraded
the basic human dignity and consciousness and kept people
suppressed even when they were capable of fine achievements.

This kind of a rigid attitude in the field of education was not in
keeping with the traditional social order of Indian society i.e.
varnashrama dharma. This institution did not mean to divide
society according to birth, but it recognized individuals in terms of
educational qualifications and their innate aptitudes. The aim of
this institution was to keep society in a state of peace and
prosperity. A brahmin was considered to be the spiritual master of
the three other sections of the society – the kshatriyas, the vaishyas
and the shudras. This status is achieved by a brahmin through
education and training, i.e. through his karma and not simply by
taking birth in the family of a brahmin.

So, it can be said that when a person's social status is recognized
on the basis of his innate aptitudes and karma, it is recognition of
the merit of a person. Similarly, the system of modern education
gave recognition to merit and ability. It can be said that the
operational method of the modern system of education and that of
the traditional social system were not at variance. It was that in the
course of time, because of the rigidity which crystallized the social
system into one that was based on birth, many social ills came in, including the rigidity in the system of education.

9. **Education and Modernization:**
Looking at the condition of Indian society of Swamiji's time, it can be said that the need for new system of education was acute. It was necessary that this system should embody a system of values that were rational, scientific, broad-based and humanitarian. Also, it should be able to fulfill the practical needs of man and society. It should contain the ideals of freedom, equality, humanism and a denial in the faith in dogmas. It should help to broaden the consciousness of man.

Swamiji's aspiration was that modern education should have the potential of leading society towards economic improvement. Also, it should redeem the society from the elements of its decadence and prepare it for a progressive regeneration.

10. **Factors responsible for the decadent condition of Indian Society:**
Swamiji considered certain factors to be behind the decadent condition of Indian society, which he sought to remove through modern education. He mentions these conditions as follows:

1. **Ignoring the past:** due to such ignorance, Swamiji was of the view that Indian society had become lifeless as it were. He has said in this regard, "Nowadays everybody blames those who constantly look back to their past. It is said, that so much looking back to the past is the cause of all India's woes. To me, on the contrary, it seems that the opposite is true. So long as they forgot the past, the Hindu nation remained in a state of stupor; and as soon as they have
began to look into their past, there is on every side a fresh manifestation of life."\textsuperscript{5}

Swamiji observed that India's ignorance of her past kept her away from realizing the value of her ancient wisdom and that was one cause of her degeneration.

2. \textit{Narrowing our outlook}: The degeneration of the mind was attributed to the narrowing the scope of our actions. Swamiji says in this regard, "That we did not go out to compare things with other nations, did not mark the workings that have been all around us, has been the one great cause of this degradation of the Indian mind."\textsuperscript{6} He further says, "One of the great causes of India's misery and downfall has been that she narrowed herself, went into her shell as the oyster does, and she refused to give her jewels and her treasures to the other races of mankind, refused to give the life-giving truths to thirsting nation outside the Aryan fold."\textsuperscript{7} Indian society had enclosed itself inside a wall of customs, holding itself apart from others under false ideas of greatness, policy and holiness. Swamiji was convinced that this tendency had proved disastrous for Indian society.

3. \textit{Perversion of religion}: Swamiji pointed out how the magnificent religion of India, Hinduism, had reduced itself to a kitchen religion of 'don't touchism' and superficial rituals. Grown up persons failed to realize the essence of religion and for centuries focused on trivial activities in the name of religion. Swamiji has said, "There is a danger of our religion getting into the kitchen. We are neither Vedantists,
most of us now, nor, Pauranics, nor Tantrics. We are just 'Don't touchists'. Our religion is in the kitchen. Our God is the cooking-pot and our religion is, 'Don't touch me, I am holy.' If this goes on for another century, every one of us will be in a lunatic asylum. It is a sure sign of softening of the brain when the mind cannot grasp the higher problems of life, all originality is lost, the mind has lost all its strength, its activity and its power of thought, and just tries to go round and round the smallest curve it can find."

Swamiji wanted the people to understand with conviction that the true meaning of religion was not to be found in acts of external piety, but in the inward realization of spirituality as the essence and core of religion. When a believer of any religion stands in earnest before the Divine, the feeling within his heart is spirituality - it has no colour, no name. It is the expansion of the human self to transcend the barriers of name and religious denomination.

4. *Tyranny Over the Masses*: Swamiji wanted the Indian masses to be brought out of ignorance, slavery and hunger. He has expressed firmly, "I consider that the great national sin is the neglect of the masses, and that is one of the causes of our downfall. No amount of politics would be of any avail until the masses in India are once more well educated, well fed and well cared for. They pay for our education, they build our temples, but in return they get kicks. They are practically our slaves. If we want to regenerate India we must work for them."
5. **Neglect of Women:** Swamiji refers to what Mann has said, 'The gods are pleased where the women are held in esteem' and conveys, that the great difference that is made between men and women, was unintelligible. The Vedanta has declared that the same conscious self is present in all living beings, then why should men cling to differences. Swamiji abhorred the calling of women, 'despicable worms', 'gateways to hell', and so forth. In the woman he saw the living embodiment of the Divine Mother. In this regard he has said, "It is very difficult to understand why in this country, so much difference is made between men and women, whereas the Vedanta declares that one and the same conscious self is present in all beings. You always criticize the women, but say what have you done for their uplift? Writing down Smritis etc., and binding them by hard rules, the men have turned the women into mere manufacturing machines. If you do not raise the women who are the living embodiment of the Divine Mother, don't think that you have any other way to rise."\(^\text{10}\)

6. **Lack of faith in ourselves:** The long subjection under foreign rule, said Swamiji, had made Indian people loose faith in themselves. He has said, "Being a conquered race, we have brought ourselves to believe that we are weak and have no independence in anything. So, how can it be but that the Shraddha is lost? The idea of true Shraddha must be brought back once more to us, the faith in our own selves must be reawakened, and, then only, all the problems which face our country will gradually be solved by ourselves."\(^\text{11}\)
7. **Lack of Self-Help:** Swamiji was of the view that the whole national character was that of childish dependence. He has said, that .... "You do not deserve to live if you cannot help yourselves."¹² "You must always remember that every nation must save itself; so must every man, do not look to others for help."¹³ Progress cannot come to a nation or an individual without the attitude of independence. The ability to take decisions independently, as a member of human society, is the mark of progress.

8. **Laziness, selfishness and jealousy:** Swamiji was strongly critical of the tendency of not coming together. He felt that mere parrot like speaking about the greatness of Indian culture was not going to bring about the desired regeneration of the society on harmonious lines. He has strongly expressed, "We are lazy, we cannot work, we cannot combine, we do not love each other; we are intensely selfish, not three of us can come together without hating each other, without being jealous of each other. That is the state in which we are - hopelessly disorganized mobs, immensely selfish, fighting each other for centuries as to whether a certain mark is to be put on our forehead this way or that way, writing volumes and volumes upon such momentous questions as to whether the look of a man spoils my food or not."¹⁴

9. **Lack of Organizing Capacity:** Swamiji brings out the great importance of the capacity for organization, by pointing to the fact, that forty million Englishmen could rule three hundred million Indians, because of the strong presence of the capacity for organization amongst the former
(Englishmen) and the lack of it in the latter, i.e. Indians. Swamiji expresses very well, "Why is it that organizations are so powerful?... Why is it, to take a case in point, that forty millions of Englishmen rule three hundred millions of people here? What is the psychological explanation? These forty millions put their wills together and that means infinite power, and you three hundred millions have a will each separate from the other. Therefore, to make a great future India, the whole secret lies in organisation, accumulation of power, co-ordination of wills. Already before my mind rises one of the marvellous verses of the Rig-Veda Samhita which says, 'Be thou all of one mind, be thou all of one thought, for in the days of yore, the god's being of one mind were enabled to receive oblations.' That the Gods can be worshipped by men is because they are of one mind. Being of one mind is the secret of society. And the more you go on fighting and quarreling about all trivialities such as, 'Dravidian' and 'Aryan' and the question of Brahmins and non-Brahmins and all that, the further you are off from that accumulation of energy and power, which is going to make the future India. For mark you, the future India depends entirely upon that. That is the secret - accumulation of will-power, co-ordination, bringing them all, as it were, into one focus." Thus, Swamiji, is seen to exhort the principle of 'unity is strength'.

10. *Lack of Business Integrity:* Swamiji observed that the business sense of the Indian people was not sufficiently methodical. For e.g. people were not strict in keeping accounts. Strict business principles were not developed,
because of which the sense of keeping friendship away from a business deal was not there.

11. **Lack of Love**: Swamiji vehemently criticized the practice of treating a section of the society outcastes, and segregating them from the social mainstream. He felt that this practice itself was backward and retrogressive and therefore, a great hurdle to the regeneration of society. He has said, "No man, no nation... can hate others and live. India's doom was sealed the very day they invented the word mlechchha and stopped from communion with others."16

Swami Vivekananda's concept of education can be called a great step towards helping Indian society to emerge from its decadent condition. He was of the strong opinion that if modern education reached the masses, it would bring about a far-reaching salutary effect on Indian society.

11. **Some Features of Modern Education:**

For achieving social and economic improvement Swamiji expresses -"What we need is to study, independent of foreign control, different branches of knowledge that is our own, and with it the English language and Western science; we need technical education and all else that may develop industries so that men, instead of seeking for service, may earn enough to provide for themselves, and save something against a rainy day."17

Considering the characteristics of modern education, it can be said that in comparison to the rigid and conservative structure of traditional education, in respect of orientation and organization, the new system of education was an agent of modernization. This
system was of western origin and it accepted the modern scientific world-view. Its content was liberal and exoteric. It had a professional structure, which was not the privilege of any specific group or class, but could be achieved by anyone in society through merit. The same was the case with the ancient system of Varnashrama, in which a person's merit was decided on the basis of his abilities and actions. Social status was acquired and not ascribed by birth. Some branches of modern education, such as science, engineering and medicine directly focused on a world-view which embodied the fundamental values of modernization and imparted the skill to realize the goal of a modern society. The foundation of this type of modern education was laid in the Indian society by the British. Thus, the system of the new education was characterized by an openness not present earlier. However, though the system of modern education was in keeping with the concept of modern education as it emerged with a broad structure of educational organization, it had certain drawbacks.

There was a contradiction between the primary and university or college level education right from the very beginning. The contradiction existed in terms of the content and medium of education. Except for the missionary and public schools, the medium of instruction at the primary level was the regional language, whereas at the college level, it was English. Science and European literature were taught at the universities and colleges but only a selected few had access to it. The mass education at the primary level remained isolated from this main current. This drawback in the educational structure which was there from the time of Macaulay, still remains. Right from the beginning modernization through education has been confined to a sub-culture of university and college-educated youth and elite. It never
became a mass phenomenon. Also, the expansion in education of the early days paid more attention to higher education than to primary education. There was a rush along the middle class for higher education and the growth in it was also considerable.

In spite of the stated drawbacks modern education was significant in the sense that its content was modernizing and liberal in nature, be it the humanities, social sciences or natural and applied sciences. It embedded values that were secular, humanistic and liberal. Since the literary content of this education was drawn from the literature of European Renaissance, Reformation and Enlightenment, the Indians learnt about the Magna Carta and the struggle for liberty and equality in Europe and America. This education also unfolded the implications of modern science. The importance of this education lay in the fact that it emphasized contemporaneity and humanistic evaluation of social, political and historical issues. It produced the sociological result of a disenchantment from traditional mythological and scriptural lores, and had an obsessive degree of orientation to the past.

The new education in turn focused the students' attention on contemporary social and physical realities. This was a major break from the traditional outlook and system of values. This education created the man-power that was indispensable for economic growth and industrial growth. The creation of professions in the fields of science and engineering contributed to the modernization of society, while education in the humanities and social sciences aimed at the modernization of man.

Thus, it can be said, that modern education had the potential to fulfill the crucial aim of education, as was envisaged by Swamiji –
that of leading society towards economic improvement, through the development of a rational, liberal, scientific outlook on life.

12. Impact of the New Education on Indian Society:
The advent of new education in Indian society led to the attempt of going back to one's roots. The new education gave the inspiration to revive the values of traditional literature, by giving them a new meaning in the new context. Apart from the emphasis on Western thinkers and literatures, there was a current of cultural introspection that was going on. This current derived its symbols from the pragmatism of the Vedas, the logical metaphysics of the Upanishads and the Karmayoga of the Gita. The foundation of this tradition was laid by leaders like Tilak, Gokhale, Gandhiji and Sri Aurobindo along with Swami Vivekananda. The significance of this cultural process was that it served to counterbalance the effect of Western education and its literary and cognitive content. It broke through the ignorance of the people and created an awareness about the magnitude of the richness of one's own culture and its values.

This is what Swamiji wanted the new education to bring about, as he says - "My whole ambition in life is to set in motion machinery which will bring noble ideas to the door of everybody, and then let men and women settle their own fate. Let them know what our forefathers as well as other nations have thought on the most momentous questions of life. Let them see specially what others are doing now, and then decide. We are to put the chemicals together; the crystallization will be done by nature according to her laws."  

The organizational structure of the new education system was also different from that of the old one. The criterion of caste or birth,
which was principle in considering someone as a guru or teacher was replaced by the system of appointment on merit, determined by the secularization of the structure and content of education.

In the Indian context education has been one of the most influential agents of modernization. It could mobilize people's aspirations for nationalism, liberalism and freedom. It was only because of the new education that there emerged a new intelligentsia, which not only carried forward the movement of independence, but also a relentless struggle for social and cultural reforms. Their struggle paved the way for a transition from tradition to modernity.

The new system of education also contributed to the process of modernization through the growth of new forms of rationally organized educational centers like schools, colleges and universities. These centers served as cultural networks for the diffusion of knowledge and cultural categories that were modern in ethos. However, some elements of conflict remained between tradition and modernity, which showed in the functioning and administration of the educational system at all levels. Though modernization was welcomed, there was also a conscious effort to preserve the traditional values. This effort revealed the birth of a new identity consciousness. It can be said that the most powerful tool in the process of modernization was education based on science and technology. The age of science taught that with determination and willingness to put in hard work prosperity will be within reach of any nation which has a stable and progressive government.
13. **Drawbacks of the New Education System:**
Considering certain facts about the new education system, though it had a modernizing influence, this system was known to have had certain limitations also – the magnitude of the growth rate of education did not seem to be impressive. Also, looking at the sociological aspect, this system did not lead to a meaningful degree of social mobility and change in the stratification system. Higher education remained confined to the upper classes reflecting the advantages of wealth and social origin. The proportion of national income devoted to education remained small in comparison to other countries like Japan, USA and even Sri Lanka. Due to these limitations, the modernizing influence of the new education system remained confined to the elites. Since it could not percolate to the masses, the hold of tradition and outdated practices remained. The process of modernizing change was therefore, not uniform.

Swami Vivekananda's vision of education for Indian society was of an education that would reach the masses and help them to think independently, uninfluenced by outworn traditions. The long hold of such traditions was responsible for the decadent condition of Indian society.

14. **Swami Vivekananda's Idea of Education:**
Swamiji's concept of education is known as that of man-making education. This concept pointed out the practical need and value of education. His firm conviction regarding the practical value of education derived concrete support in his own experience. During his travel through the cities of Europe he had observed that even the poor people had comforts and education. This experience made him reason about the dismal plight of poor Indians and he found the answer in education. Education alone was observed to have
made a big difference in the living condition of the people of the two countries. So education was perceived to be an agent which elevated the level of individual human existence as well as the level social existence. Education was viewed as the primary need of Indian society. The lower classes would be able to develop their individuality only through education.

Swamiji perceived the ultimate aim of education as spiritual. He believed that it should help man to work out his own salvation. Education gives man the necessary ideas by which one is able to arouse the divinity within oneself and work out one's spiritual development. But dismal material conditions of human life obscure the process of spiritual development. In the scale of human values spiritual development comes highest. The aspiration for the higher values of life comes to a person whose basic necessities of life are fairly satisfied. Conditions of utter deprivation do not inspire higher sentiments. Thus, a certain level of material well-being is essential even to realize that the foundation of one's existence is spiritual. The realization of the importance of man's material well-being was prominent in Swamiji's thought. That is why his views reflected the spirit of modernity. Swamiji expressed the practical need for the prevailing secular education in the fields of humanities, social sciences, science and technology. This kind of education was considered necessary for improving the material conditions of man's life.

However, Swamiji's idea of education reflected the purpose fulfilled by the old system of gurukul learning.

Swamiji, thus talks about the gurukul system - "My idea of education is personal contact with the teacher - gurugrihavasa."
Without the personal life of the teacher there would be no education."19

"One should live from his very boyhood with one whose character is like a blazing fire and should have before him a living example of highest teaching..... In our country, the imparting of knowledge has always been through men of renunciation. The charge of imparting knowledge should again fall upon the shoulders of Tyagis."20

"The old system of education in India... was very different from the modern system. The students had not to pay. It was thought that knowledge is so sacred that no man ought to sell it. Knowledge must be given freely and without any price. The teachers used to take students without charge, and not only so, but most of them gave their students food and clothes. To support their teachers the wealthy families... made gifts to them... and they in their turn had to maintain their students."21

"The teacher must not teach with any ulterior, selfish motive, for money, name or fame; his work must be simply out of love, out of pure love for mankind at large."22

Regarding the student, Swamiji says – "The disciple of old used to repair to the hermitage of the guru, fuel in hand, and the guru, after ascertaining his competence, would teach him the Vedas."23

"Without faith, humility, submission, and veneration in our hearts towards (the) teacher there cannot be any growth of religion in us.... In those countries which have neglected to keep up this kind of relation, the teacher has become a mere lecturer, the teacher expecting his five dollars and the person taught – expecting his
brain to be filled with the teacher's words, and each going his own way after this much has been done."\(24\)

Considering the purpose fulfilled by this system from the present day perspective of education, it can be said that the gurukul system trained the student to gain a rightful place in society and be a member of humanity rather than of some small group or nation. The process of globalisation requires an all-round development of the human personality. In this system the student not only acquired bookish knowledge but also got those skills that were necessary for making one a worthy human being and worthy citizen.

It fulfilled the purpose of refining the individual not simply at the periphery of human life, but for the refinement of man right from the core. Man's outward progress is meaningful when his inner self is also progressing towards enlightenment and inner harmony. Education ought to make a person self-reliant. Swamiji has said - "all the wealth of the world cannot help one little Indian village if the people are not taught to help themselves." Thus, education should fulfill the purpose of intellectual and moral development.

Swamiji was disappointed with the then existing system of education. He criticized it as one of the chief causes of India's ruin. It was a closed system, monopolized by dint of pride and royal authority which lay among a handful of men. To rise again it was necessary to spread education among the masses. The masses symbolized the heart of Indian society. Their education implied the spread of progressive ideas throughout the society.
Swamiji clearly expresses - "From the day when education and culture spread gradually from patricians to plebians, grew the distinction between the modern civilization as of Western countries, and the ancient civilization as of India, Egypt, Rome, etc... I see it before my eyes, a nation is advanced in proportion as education and intelligence spread among the masses. The chief cause of India's ruin has been the monopolizing of the whole education and intelligence of the land by dint of pride and royal authority, among a handful of men. If we are to rise again, we shall have to do it in the same way, i.e., spreading education among the masses."25

"The remedy now is the spread of education."26

Swamiji expresses his plan of action - "My idea is to bring to the door of the meanest, the poorest, the noble ideas that the human race has developed both in and out of India, and let them think for themselves."27

To understand the dissemination of progressive ideas through education, it is necessary to understand the definition and essence of education as envisaged by Swamiji.

15. Definition of Education:
Swamiji's definition of education has a spiritual orientation. He defines it as the manifestation of the perfection already in man.18
As he says in one of his profound utterances, "Education is the manifestation of the perfection already within man."28

He felt that fullest development of man could be achieved here and now through education. Man's self is the mine of infinite knowledge. Education is what a man discovers after taking the veil of ignorance
and delusion off the self. The task of a teacher is to facilitate the manifestation of this knowledge by helping to remove the obstruction in the way of manifestation.

Swamiji says – "All knowledge therefore, secular or spiritual, is in the human mind. In many cases, it is not discovered, but remains covered, and when the covering is being, slowly taken off, we say 'we are learning', and the advance of knowledge is made by the advance of this process of uncovering. The man from whom this veil is being lifted is the more knowing man; the upon whom it lies thick is ignorant; and the man from whom it has entirely gone is all-knowing, omniscient – Like fire in a piece of flint, knowledge exists in the mind; suggestion is the friction which brings it out. All knowledge and all power are within. What we call powers, secrets of nature, and force are all within. All knowledge comes from the human soul. Man manifests Knowledge, discovers it within himself, which is pre-existing through eternity."\(^{29}\)

This idea is well-expressed by Dr. Radhakrishnan in his views about Mahatma Gandhi's idea of education- "It is wrong to think... that the purpose of education is life adjustment. It is life enhancement; transforming life to suit our needs, to subject ourselves to environment which is the opportunity given to this species to improve the environment, to change our nature. That is the opportunity, which is given to man, and it is possible because a human being can sit in judgement of nature; he does not become merely a creature of routine."\(^{30}\)

It has been a characteristic Indian approach to include the spiritual aspect as a part of development through education. For example – Yanavalkya has opined that only that is education which gives a
sterling character to an individual and renders him useful for the world. Shankaracharya has expressed that education is that which leads to salvation. Modern Indian thinkers have found the old concept of education meaningful as it fulfils the universal aim of education.

The universal aim of education has always been holistic in nature. It aims at the comprehensive development of the human personality. From earliest times to the present, education has aimed at developing the abilities and tendencies of human beings in such a way that it would be possible to achieve maximum adjustment, both personal and social.

He further says in the same line of thought "No one was ever really taught by another. Each of us has to teach himself. The external teacher offers only the suggestion which rouses the internal teacher to work to understand things. Then things will be made clearer, to us, by our own power of perception and thought, and we shall realize them in our own souls." \(^{31}\)

Human nature does not change with time and latitude. Hence, education has some universal aims. For example, the principle that a healthy mind needs a healthy body is a universal maxim. It is also a universal aim of education. For this reason everywhere education includes mental and physical training to train the individual to occupy himself usefully and profitably. Also, education teaches man to strike a balance between himself and society.

Swamiji conceives the essence of education in the concentration of the mind and not simply in the collection of facts. Thus, the activity of education is anchoring of the human personality to the process
of development from within. It involves the assimilation of profounder ideas, that are life-building, man-making and character-making. The ideas must be well-digested. They must be absorbed in one's life and character, so that they actually make a positive difference in the human self. Education is not simply something that gets collected in the brain, so Swamiji has said that it is not the amount of information put into one's brain which remains there undigested. It is the process of imbibing through knowledge for the construction of character, to increase the strength of the mind and to expand the intellectual capabilities and make a person self-reliant. Again, education is not simply the acquiring of bookish knowledge, because such knowledge does not equip the person to face the struggles of life. The practical worth of education lies in its ability to train the masses to face the struggles of life bravely, bring out strength of character and a spirit of philanthropy and inspire immense courage.

To put it in Swamiji's words - "By education I do not mean the present system but something in the line of positive teaching. Mere book-learning won't do. We want education, by which character is formed, strength of mind is increased, the intellect is expanded, and by which one can stand on one's own feet."\(^{32}\)

Again – "What we want are Western science coupled with Vedanta Brahmacharya as the guiding motto, and also shraddha and faith in one's oneself."\(^{33}\)

Regarding the value of higher education Swamiji says, "Does higher education mean mere study of material sciences and turning out things of everyday use by machinery? The use of higher education is to find out how to solve the problems of life, and this is what is
engaging the profound thought of the modern civilized world, but it was solved in our country thousands of years ago."34 Swamiji thus explains and defines education.

Considering Swamiji's views on education, his unique contribution can be said to be the synthesis between science and religion.

16. Synthesis of Science and Religion:
Swamiji was of the opinion that science and religion were two great disciplines, which, when combined harmoniously, had the potential of bringing about an all-round expression of the human genius. And he worked to bring about a consummation between the two, for the benefit of mankind. Thus, he saw in their harmony the good of the whole of humanity and not just that of the Indian masses, though his inspiration came from the deprivation of the Indian masses. In this sense he can be said to have been a true representative of the inclusive character of Indian culture.

The civilization, in which we are living today, is the product of science. We find two aspects in its discipline, and they are pure science and applied science. Pure science is the aspect which earnestly tries to understand the truth of experience through a dispassionate inquiry; and applied science is the aspect in which the truth discovered by pure science flows as inventions for the technical enrichment of human life. It is evident that knowledge leads to power, and power leads to control and manipulation of the forces of nature, enabling man to condition his life and environment with deliberation. Every new discovery in pure science, at some stage or other, becomes converted into applied science, into control and manipulation of the forces of nature. As a result we can see the great saga of scientific discovery and invention, with the world-wide
technological civilization of today. The discipline of science has revealed the fascinating fact about the magnificent capacity of the human mind to procure truth after truth from nature and develop highly advanced technologies like nuclear science, space satellite technology, stem-cell application, which is a very advanced system of treatment in the field of medicine, along with other advanced treatments, production of test-tube baby, nano technology, and probably much more to come.

17. Limitations of Science:
Though science has given us a vast body of insights (especially physics, astronomy and biology), when we go deeper into this subject, its limitations become apparent. Nineteenth century physics is known to have considered its pronouncements as certain, but the twentieth century is known to have witnessed a contrasting attitude of humility in the great physicists of that time. This change of attitude was due to the discovery of radio-activity and insight into the nucleus of the atom. These discoveries brought the realization as it were, that there is a severe limitation placed on our knowledge regarding the truth of the external world. Science had to make the humble confession that it deals only with the appearances of things and not with the reality behind these appearances. Some of the greatest of modern physicists have said that what science has revealed of the world around us is only the outer aspect of things. And, that behind this observable universe, there is an unobservable universe. The object of scientific inquiry is phenomena revealed by the senses, and the capacity for obtaining knowledge possessed by the senses is limited. What is revealed by the senses many a times indicates that there are realities behind the sense world, determining it and controlling it. Science restricts
itself to the understanding of the observable part of the universe and to controlling its energies for the uses of man.

The science of biology too, was definite about its pronouncements. By a study of the different aspects of the phenomena of life it arrived at the great theory of evolution. It drew certain conclusions, from this theory, which are known to have led directly to a form of materialism that equated man with the animal, and both to a machine. However, later scientists had expressed that they were unhappy with the titles Darwin chose for his famous books. Sir Julian Huxley, has made the suggestion in his work, Evolution after Darwin, Vol. II, Pg. 17, that Darwin’s 'Origin of Species' could have been titled, 'The Evolution of Organisms' and the 'Descent of Man' could have been 'The Ascent of Man'. It needs to be mentioned in this regard, that these books had appeared at a time when a fierce controversy was going on between emerging science and the entrenched Christian dogma, and this is known to have had its impact even on the choosing of titles of great scientific books. The science of physics with its staunch materialism and mechanistic determinism, and the science of biology with its newly discovered evolutionary theory and its domination by the general materialistic outlook of science and scientists of the time, helped to shatter nineteenth-century man’s faith in religion and spiritual values.

18. Limitations of Dogma-bound Religion:
During the period of the industrial revolution religion came under further attack by the great social idealists and revolutionary social thinkers, like Karl Marx. These idealists, posed the poignant question of human suffering in the world - of the starving millions and thousands of children working like slaves in factories and workshops for the benefit of a few capitalist exploiters, against the
reality of God. The reality of God seemed unintelligible against the stark reality of the suffering of so many. Thus, Marx characterized religion as the 'soul of soulless conditions, the heart of a heartless world, the opium of the people.'

As a result of all this, man lost the fear of God, and more especially fear of the devil-Christian religious dogma was known to have upheld the fear of the devil, more than the fear of God, as conducive to moral control of human action and belief. Faith in God ceased to be the ruling idea of modern civilization. The scientific spirit of the West treated both, faith in God and fear of the devil as primitive superstitions, unworthy of modern civilized man. For modern science religion was a dangerous error in the beginning and a harmless illusion in the end.

A change in attitude, a certain chastening of the spirit, of Western thinkers, especially of those in the scientifically advanced countries of the West, came after the two great world wars. The various crises, economic and political, had led to this change. Social thinkers were observed to be less and less sure of their remedies for human ills. Even great scientists began feel and express that science, as understood and pursued by them, was not enough. Einstein is known to have expressed that science can denature plutonium; but it cannot denature the evil in the heart of man. That is not its function. Most scientists began to realize that science cannot ensure human happiness; it can only create conditions for his happiness.

To ensure that man shall be happy is not the function of the positive sciences of either physics or biology. This can be ensured
by the science of the inner nature of man, which is the true meaning of religion as understood in Indian thought.

A short account of how developments in science had affected the social attitude of the people of the Western society is important because Swamiji had traveled through the Western world. He was highly appreciative of the spread of education and the contributions of science towards the enrichment of the material conditions of man's life in that society. He wanted the same for Indian society as he was convinced to the core that the regeneration of Indian society can come only through modern education. It was this education that was supposed to instill a scientific attitude and deliver the society from economic deprivation. But for Swamiji modern education alone was not sufficient. Modern education, knowledge of scientific developments were instruments of material progress, to create a balance with that was brought in the necessity of the inner, spiritual development of man.

The shortcomings of modern science and the signs of spiritual urges in it, can be observed in the writings of some modern scientists. For instance, scientist like Sir James Jeans, considered nature as profoundly mysterious inspite of all the marvellous scientific discoveries. He felt that he had only scratched the surface of nature, and that he was far away from the heart of the problem of the universe. He has expressed, "Physical science set out to study a world of matter and radiation, and finds that it cannot describe or picture the nature of either, even to itself. Photons, electrons and protons have become about as meaningless to the physicists as x,y,z are to a child on its first day of learning algebra. The most we hope for at the moment is to discover ways of manipulating x,y,z without knowing what they are, with the result that the advance of
knowledge is at present reduced to what Einstein has described as extracting one incomprehensible from another incomprehensible."35

Considering how the mystery of man has eluded the scientist, the late Sir Arthur Eddington, the famous mathematician and physicist has expressed, "The theory of relativity has passed in review, the whole subject matter of physics. It has unified the great laws which, by the precision of their formulation and the exactness of their application, have won the proud place in human knowledge which physical science holds today. And yet, in regard to the nature of things, this knowledge is only an empty shell - a form of symbols. It is knowledge of structural form, and not knowledge of content. All through the physical world runs that unknown content which must surely be the stuff of our consciousness. Here is a hint of aspects deep within the world of physics, and yet unattainable by the methods of physics. And, moreover, we have found that where science has progressed the farthest, the mind has but regained from nature that which the mind has put into nature.

"We have found a strange foot print on the shores of the unknown. We have devised profound theories, one after another, to account for its origin. At last, we have succeeded in reconstructing the creature that made the footprint. And lo! it is our own."36

Sir Arthur Eddington is talking about the footprints footprint left by man on the shores of the unknown. Man seems to encompass a profounder mystery than is there in the depths of outer space or of the atom. This mystery seems to hold the key to all other mysteries. In a talk over B.B.C., Sir Eddington had posed the question "What is the truth about ourselves?" and he proceeded to answer - "We may incline to various answers. We are a bit of star gone wrong.
We are complicated physical machinery - puppets that strut and talk and laugh and die as the hand of time turns the handle beneath. But let us remember that there is one elementary inescapable answer: We are that which asks the question - "Thus, man is primarily a subject. He cannot be reduced to objective dimensions. In the language of the Vedanta he is the saksin or ksetrajna. In this way, Sir Eddington throws a hint at the aspects deep in the world of physics, but unattainable by the methods of physics.

The limitation of physical science to fathom the mystery of man and the universe has been well expressed again by Lincoln Barnett, in his study of Einstein's contributions to modern scientific thought. To quote him - "In the evolution of scientific thought, one fact has become impressively clear; there is no mystery of the physical world which does not point to a mystery beyond itself. All highroads of the intellect, all byways of theory and conjecture, lead ultimately to an abyss that human ingenuity can never span. For man is enchained by the very condition of his being, his finiteness and involvement in nature. The further he extends his horizons the more vividly he recognizes the fact that, as the physicists Niels Bohr puts it, "We are both spectators and actors in the great drama of existence." Man is thus his own greatest mystery. He does not understand the vast veiled universe into which he has been cast for the reason that he does not understand himself. He comprehends but little of his organic processes and even less of his unique capacity to perceive the world around him, to reason and to dream. Least of all, does he understand his noblest and most mysterious faculty - the ability to transcend himself and perceive himself in the act of perception."37

Such spiritual urges in modern science and the admission of scientists regarding the inability of science to fathom, the mystery
of the universe, points to the fact, that modern civilization had overrated science and technology just as the older civilization had underrated it. There was a need to view science in its proper perspective - the perspective of total human knowledge and welfare. This is one of the several vital contributions of Swamiji to modern thought - that is to present science and religion in their proper perspectives, and this was to be done through the process of education. In his lecture 'My Master', delivered in New York, in 1896, he has dealt with the complementary character of Eastern contributions to religion and Western contributions to science. He has said in this regard, "Each of these types has its grandeur, each has its glory. The present adjustment will be the harmonizing, the mingling, of these two ideals. To the oriental, the world of spirit is as real as to the occidental is the world of senses. In the spiritual, the oriental finds everything he wants or hopes for; in it he finds all that makes life real to him. To the occidental, he is a dreamer; to the oriental the occidental is a dreamer playing with ephemeral toys, and he laughs to think that grown-up men and women should make so much of a handful of matter which they will have to leave sooner or later. Each calls the other a dreamer. But the oriental ideal is as necessary for the progress of the human race as is the occidental, and I think it is more necessary. Machines never made mankind happy and never will make. He who is trying to make us believe this will claim that happiness is in the machine; but it is always in the mind. That man alone who is the lord of his mind can become happy, and none else. And what, after all, is the power of machinery? Why should a man who can send a current of electricity through a wire be called a very great man and a very intelligent man? Does not nature do a million times more than that every moment? Why not then fall down and worship nature?"38
19. The Scientific Attitude and Universal Science and Religion:

As just stated, Swamiji's words bring up a case for the meeting point of science and religion. Indian thought has upheld both, religion and science as valid disciplines in the pursuit of truth. India endorses the view exposed by Sir Eddington about the spiritual kinship of science and religion. Sir Eddington has said, "You will understand the true spirit neither of science nor of religion unless seeking is placed in the forefront." Unlike the theologians and scientists of the West, Indian thinkers never perceived any contradiction between science and religion. Such contradiction and conflict was the result of a narrow view of both religion and science. Swamiji's conception of a scientific attitude which he wanted to instil in the minds of the people through the process of education, was to be the understanding of the complementary character of science and religion. He wanted education to help people to discard vague and rather confused notions about the two. He wanted the people to understand the deeper value of science and to discard the idea that science is a means for the acquisition of material benefits. In the view of great scientists, science is the pursuit of truth. It is the pursuit of the truth hidden in the facts of nature, in the data revealed by the senses and the data revealed by experiments. It is a sincere, critical, detached study of experience, which confused data are reduced to meaning and orderliness and brought under control. To put it in the scientist, Karl Pearson's words, "The classification of facts, the recognition of their sequence and relative significance, is the function of science, and the habit of forming a judgement upon these facts, unbiased by personal feeling is characteristic of what may be termed the scientific frame of mind."
A scientific attitude, therefore, can be said to be the passion for objectivity and precision, as science is simply sincere critical thought which accepts conclusions only when they are based on evidence. Any study which possesses objectivity and precision can be called a science. The departments of science such as chemistry or biology have limited scope, in their advanced stages; these departments overstep their boundaries and merge into one converging scientific search, that is, the search for meaning of total experience. In this expansive context, the idea of a context, the idea of a science of religion, as the science of the facts of the inner world of man, as upheld in ancient Indian thought, and as expounded in the modern age, by Swami Vivekananda becomes greatly significant.

The way in which religion developed in the West and was understood there, was, in its aims, methods and data, opposed to the scientific spirit or rational seeking and investigation. It was a creed or a dogma, a frozen piece of thought. That is why it came into conflict with the advancing tide of science with its spirit of seeking and rational inquiry. On the other hand, in India religion has always been understood to be a matter of seeking, finding and verification - as any of the branches of science. The same spirit is expressed in the thoughts of Swamiji regarding science and religion. Swamiji has pointed out, that when religion refuses to take the help of reason, it weakens itself. Alluding to this he has said in a lecture on 'Reason and Religion' delivered in England in 1896, "The foundations have all been undermined, and the modern man, whatever he may say in public, knows in the privacy of his heart that he can no more 'believe'. Believing certain things because an organized body of priests tells him to believe, believing because it is written in certain books, believing because his people like him to
believe, the modern man knows to be impossible for him. There are, of course, a number of people who seem to acquiesce in the so-called popular faith, but we also know for certain that they do not think. Their idea of belief may be better translated as 'not-thinking-carelessness'"41

In the same line of thought Swamiji has pleaded for the application of reason in the field of religion, "Is religion to justify itself by the discoveries of reason through which every other science justifies itself? Are the same methods of investigation, which we apply to sciences and knowledge outside, to be applied to the science of religion? In my opinion, this must be so, and I am also of opinion that the sooner it is done the better. If a religion is destroyed by such investigations, it was then all the time useless unworthy superstition; and the sooner it goes the better. I am thoroughly convinced that its destruction would be the best thing that could happen. All that is dross will be taken off, no doubt, but the essential parts of religion will emerge triumphant out of this investigation. Not only will it be made scientific - as scientific, at least, as any of the conclusions of physics or chemistry - but it will have greater strength, because physics or chemistry has no internal mandate to vouch for its truth, which religion has."42

It can be observed in Swamiji's ideas that he firmly expounded that education should inspire the scientific temperament, because along with knowledge, Swamiji has pointed out, that Indian thought has expounded the scientific approach even to religion. A study of the Upanishads is known to reveal that the subject of religion was approached in ancient India in an objective dispassionate manner; the aim of the study was to get at truth, and not to accept pleasing fancies and illusions or to idolize tribal passions and prejudices.
Swamiji has said in his lecture on 'Religion and Science', "Religion deals with the truth of the metaphysical world just as chemistry and the other natural sciences deal with the truths of the physical world. The book one must read to learn chemistry is the book of nature. The book from which to learn religion is your own mind and heart. The sage is often ignorant of physical science because he read the wrong book - the book within; and the scientist is too often ignorant of religion, because he too reads the wrong book - the book of without."  

The investigations of Indian thinkers revealed to them the reality of two fields in which man functions - the external and the internal field. These are two different orders of phenomena. Simply a study of one does not exhaust the whole range of experience. Also, the study of the one from the standpoint of the other will not lead to satisfactory results. But the study of the one in the light of the conclusions from the study of the other is helpful and relevant. In his lecture on 'Cosmology', Swamiji has said in this regard, "There are two worlds, the microcosm and the macrocosm, the internal and the external. The get truth gathered from internal experience is psychology, metaphysics and religion; from external experience, the physical sciences. Now a perfect truth should be in harmony with experience in both these worlds. The microcosm must bear testimony to the macrocosm, and the macrocosm to the microcosm; the physical truth must have its counterpart in the internal world, and the internal world must have its verification outside."  

Understood in this light, there is no conflict between science and religion. Both have the identical aim of helping man to grow in spirituality, of ushering in a better social order which alone can provide him with the stimulus to total life-fulfillment. Swamiji has
made an outstanding contribution to the human thought of his time and of the present, by expounding the complementary characters of science and religion. Swamiji strongly believed that the combination of the spiritual energies of these two complementary disciplines in the life of man will produce fully integrated human beings and thus help to evolve a complete human civilization for which the world is ripe and waiting. Swamiji’s synthetic vision made him realize that the scientific attitude should constitute the understanding of the separate values of science and religion, and the accomplishment of this task was to be done through the process of education. For only then would it be possible to understand that both of them are complementary and that they can be combined for securing the regeneration of Indian society.

The regeneration of man and society that is being talked about, has to be initiated and guided by somebody. Outside the home, in a formal institute of learning, this task has to be performed by a teacher. Therefore, it is obvious that the qualities of a teacher are very important.

20. Qualities of a Teacher:
It is the teacher who conveys the ideals of education to the individuals. Swamiji was of the opinion that only a true teacher would be able to convey the right training to the students. A true teacher is conceived as someone who can bring oneself to the level of the student. Such a teacher successfully communicates and makes a positive difference in the attitude of the student. Thus, a teacher is not a mere professional who simply speaks the relevant topics and leaves, whose words do not make any difference in the life of the student. Swamiji was of the view that the relation of teacher and student must have a personal touch, as it was in the
gurukul system. It was the duty of a guru to educate the student to become a good citizen.

For the teacher to make an impact on the student, his character should be a blazing fire of strength and enlightenment and the student should imbibe values from the life of the teacher. To churn out educated and worthy citizens, the guru himself had to be the embodiment of knowledge and an exemplary moral character. Society vested an enormous responsibility on the teacher. He could not be a victim of any kind of fickleness or weakness. He had to be a role-model in the process of man-making education.

Swamiji has enlisted the qualities of a teacher, Swamiji has said – "In regard to the teacher, we must see that he knows the spirit of the scriptures. The whole world would read Bibles, Vedas and Korans; but they are all only the words, syntax, etymology, philology – the dry bones of religion. The teacher who deals too much in words and allows the mind to be carried away by the force of words loses spirit. It is the knowledge of the spirit of the scriptures alone that constitutes the true teacher." 45

"The second condition necessary for the teacher is sinlessness. The question is often asked: "Why should we look into the character and personality of a teacher?" This is not right. The sine qua non of acquiring truth for oneself, or for imparting to others is purity of heart and soul. He must be perfectly pure and then only comes the value of his words. The function of the teacher is indeed an affair of the transference of something and not one of mere stimulation of existing intellectual or other faculties in the taught. Something real and appreciable as an influence comes from the teacher and goes to the taught. Therefore, the teacher must be pure." 46
"The third condition is in regard to the motive. The teacher must not teach with any ulterior, selfish motive, for money, name or fame. His work must be simply out of love, out of pure love for mankind at large. The only medium through which spiritual force can be transmitted is love. Any selfish motive will immediately destroy the conveying medium."47

Along with parents it is the teacher a student looks upto for guidance and inspiration. The presence of good teachers can play a pivotal constructive role in the life of a student. It can give the right ideas and values which can act as the foundation of one's character. Though professionalism and commercialization have become a part of the education system wherein education is more of a lucrative business or a task to be finished by the teacher, business than an ethical duty, the individual still views the teacher as a role model. Thus, the tendency to regard one's parents and teachers as role models is in someway innate to man's mind. That is why the teacher is expected to be the embodiment of great qualities.

Along with the qualities of a teacher, Swamiji also expresses his views about the qualities of a student. He says- "The conditions necessary for the taught are purity, a real thirst after knowledge, it is an old law that we all get whatever we want. None of us can get anything other than what we fix our hearts upon. There must be a continuous struggle, a constant fight, an unremitting grappling with our lower nature, till the higher want is actually felt and victory is achieved. The student who sets out with such a spirit of perseverance will surely find success at last."48
21. Education in the present time: Its Importance

Right from the modern period till the present time we can see the immense progress in the field of science and technology. It can be said that the progress of any nation depends to a large extent on its scientific progress. To achieve this progress scientific education is essential. Science has been responsible for important technological developments in the fields of production and commerce. Absence of technical knowledge within a country is reflected in the lower level of production in every field and also in the failure of the products to compare favourably with products prepared outside. Consequently, a nation cannot make its mark in international trade, which in turn leads to a worsening of its economic condition. Hence, technical education is a necessity of every country.

Almost all scientific discoveries and technological developments had taken place in the west. Hence, it was essential to imitate the west in respect of technical and scientific knowledge and learning. The west was ahead of the world not only in the sphere of technological advancement but also in the sphere of modern education. Because of this, it was able to provide a good life to the people even at the village level. Swamii was deeply impressed by the prosperity of the west, and though he favoured the ancient system of gurukul education, he was convinced that the education which led the west to material progress should be imparted to the people of India for the improvement of their material conditions and to remove them out of economic destitution.

Furthermore, the lack of education was the breeding ground of many ills. To take an example, the economic situation was the most piercing problem facing the country.
To put it in Swamiji's words – "The one thing that is at the root of all evils in India is the condition of the poor."\(^ {49} \)

"Suppose you open a free school in every village still it would do no good for the poverty in India is such that the poor boys would rather go to help their fathers in the fields or otherwise try to make a living than come to the school."\(^ {50} \)

There was not enough food grown to feed everyone. The simple reason behind this was, that the Indian farmer was ignorant of modern development and continued to rely upon traditional methods of agriculture and farming. Therefore, it became necessary to depend upon western countries for food supplies. So it was essential that all technical innovations in the field of agriculture should be made known to the farmer. Poverty was making it difficult for the average individual to fulfill his physical requirements of food, shelter and clothing. This situation led to the problems of failing health, increasing diseases and a consequent waste of the nation's labour wealth. Science has done much to save wealth, time and effort by technological improvements in the fields of production, exchange, transport and communications. Without adopting these innovations, a nation's progress was impossible. Thus, scientific and technical education was necessary for curing the country of its economic ills.

Swamiji's practical sense made him see the relevance of the study of English language and western science. He emphasized the need for technical education to develop industries so that man may be helped to become self-sufficient. Western technical education was supposed to lead to improvement of the economic conditions of the people.
However, it should be kept in mind that scientific and technical education is the means and not an end in itself. It is inadequate in the absence of what Swamiji calls liberal education. Only a liberal education can help in the development of a balanced personality and human qualities. This education should be followed by training in some specific field so that one can be equipped to earn his living. Scientific and liberal education serve as complements to each other.

Swamiji was very clear about the real purpose of education. Education was not to be simply for the improvement of the material conditions as though acquiring economic well-being was absolutely necessary, it was not the ultimate aim. If education is to play the role of man-making, it must be coupled with moral education and the spirituality expanded by Vedanta. Brahmacharya and faith, in one's self should be the guiding motto.

"About brahmacharya Swamiji says – "Every boy should be trained to practice absolute brahmacharya, and then, and then only, faith – shraddha will come."51

"Chastity in thought, word and deed, always, and in all conditions, is what is called Brahmacharya."52

Swamiji says on the importance of brahmacharya – "It is owing to this want of continence that everything is on the brink of ruin in our country. By the observance of strict brahmacharya, all learning can be mastered in a very short time – one has an unfailing memory of what one hears or knows but once."53
"The chaste brain has tremendous energy and gigantic will-power."\textsuperscript{54}

"Controlled desire leads to the highest result. Transforms the sexual energy into spiritual energy... The stronger this force, the more can be done with it. Only a powerful current of water can do hydraulic mining."\textsuperscript{55}

The purpose of education was to be fulfilled in a crucial way by imbibing all those elements from the West that were necessary for the betterment of the Indian masses, but without giving up one's place in one's own tradition. The purpose of western education therefore was not to westernise the Indian masses, but to make them self-reliant. Man-making education meant that education which made the individual fit enough to become a part of that developmental process which had made the West self-reliant and which was therefore necessary for Indian society to achieve the same self-reliance. But at the same time, it was also necessary to maintain one's equilibrium amidst the new forces of change coming through education. The benefits of modern Western education were to be enjoyed without getting uprooted from one's own tradition and moral values.

First of all education should help to overcome human weaknesses and to every sphere of life. It should free the mind from all that is unnecessary, like superstitions and give clarity of thought. It should lead from falsehood to reality. Only then will it equip one to face the multi-dimensional changes and challenges of the time. When the mind is clear moral and intellectual capabilities can be developed in man along with the required practical knowledge.
22. Education as a remedy for the destitution of the masses:
Swamiji considered man-making education as that which elevated the individual by bringing him out of destitution. The destitution which Swamiji sought to bring to an end through education was not of one kind. He spoke of destitution existing at two levels – the practical and the personal. At the practical level education was for ending economic destitution. At the personal level it was for ending the destitution of character. Swamiji was convinced that education alone could remove the poverty and want of the masses because education instills faith in one's ownself. Through this faith, the spirituality inherent in man is awakened, which makes him self reliant. In this way man delivers himself from destitution to achieve fulfillment.

The progress of a society depends upon or is commensurate with the extent of the spread of education in it. Thus, education should spread to the masses, including women. The awareness of all that is new and useful for the progress of one's society comes through education. It also develops the sense as to how the new developments can be meaningfully used in a particular context, since it helps to develop the sense of right and wrong. Education facilitates the removal of economic as well as intellectual destitution.

Apart from academic knowledge, education should also impart the training to make a person competent to handle the ups and downs of day to day life. So Swamiji was of the opinion, that the knowledge of history and the Puranas, housekeeping and the arts, the duties of home-life and principles that make an ideal character must be taught.
Finally, Swamiji insisted that education must inculcate moral and spiritual values of Vedanta, so that there is a timely balanced development of the individual personality. The natural tendency of the mind towards worldly indulgence which tends to become stronger with the achievement of material progress needs to be balanced with an inner spiritual awakening in order to keep the individual firmly grounded in reality. The ability to distinguish between the real and the unreal should always be sharp in every sphere of life. As one acquires the finer elements of worldly life, the inner life must gain even greater fineness. One's individuality should develop through education in such a way that it remains rooted in the spiritual values of Indian culture and at the same time is open to receive all that modern science and knowledge has to offer for the economic well-being of that culture.

It needs to be pointed out that Swamiji was very particular about the inclusion of women in the process of education.

23. Education for Women:

Home is the place from where the process of education begins. In a way, it is the foundation of all the learning sources outside the home. Since the keeping and making of a home is essentially the task of women, Swamiji considered that for women to be able to perform this task efficiently, they must receive education in religion, arts, science, housekeeping, cooking, sewing and hygiene. Women's education should be exemplary in all matters. To inculcate moral integrity in women, such as devotion and lofty principles of selflessness, ideal women characters should be presented before them who can inspire moral courage. Swamiji recommended the examples of noble women like Sita, Savitri, Damayanti, Lilavati, Khana and Mira.
Swamiji says, "Ideal characters must always be presented before the view of the girls to imbibe them with a devotion to lofty principles of selflessness. The noble examples of Sita, Savitri, Damyanti, Lilavati, Khana and Mira should be brought home to their minds, and they should be inspired to mould their own lives in the light of those."\textsuperscript{56}

Swamiji was keen that religion should be the basis of female education. It should spread with religion as its centre. All other training should be secondary to religion. By religion, however, Swamiji does not mean one particular religion. He was of the opinion that the spirituality which is the essence of religion and which is inherent in religion should be the basis and aim of education.

From what has been discussed, the following objectives of education can be discerned as envisaged by Swami Vivekananda.

\textbf{24. Objectives of Education:}

a. To train children to appreciate the nation’s cultural heritage and to equip them with the desire and capacity to enhance this heritage and leave to posterity a richer legacy.

b. To train the children in talents and capacities so that they become productive units of society and the source of its economic strength.

c. To train the children in virtues and graces that will make them emotionally stable individuals and enable them to live in peace, harmony and co-operation with their fellow citizens.

d. To train the children in order to inculcate in them the fine virtues that will make them international in their outlook and
sympathies, and enable them to live in peace, harmony and co-operation with the world community.

e. To train the children to an awareness of the spiritual and trans-social dimension of the human personality and to a converging life-endeavour in the realization of this fact and through their lives and actions.

In this way, the process of education will become a fit discipline to help to continue the march of the Indian tradition from an impressive past to a glorious future. Such educational training will enable the children to grow up as citizens with a global universal outlook and synthetic approach towards man and society.

25. Conclusion:
Swamiji's conviction that education alone can bring a change in the socio-economic conditions of Indian society, was based on his thorough and keen observation of the society of his time. His conviction is based on the concrete reality of Indian society of his time, that is, of a particular time – but the way in which he elucidates the importance of education as essential for man-making brings out the perennial value of education. Right from ancient times, Indian society has considered the role of education as pivotal, as it plays the essential role of churning men into responsible citizens of human society. The same concept of education prevailed in early Greek society also. In this way education fulfilled a moral function – that of man-making.

The same concept of education is reflected in Swami Vivekananda in a very broad manner. Real education was something confined to bookish knowledge of the various subjects learnt at school or to the obtaining of a university degree, which would result in bringing employment to the person. Such acquisition of knowledge, though
necessary, was considered superficial and leading to the satisfaction of goals that did not actually transform the human personality from within. Nor was education considered to be time bound. It was to be a continuous life-long process wherein man learns the art of living form varied agencies.

So it can be said that education is a dynamic process which is obtained through active interaction of individual with the environment. Education can be considered as modernizing and scientific when it can prepare the individual not simply for the present but also for the time to come. It must have a futuristic orientation. It should develop the ability of foresight and of forming correct judgments. Therefore, learning must incorporate the personal experience of an individual as the rich experiences of the savants of learning. Educational institutions should not merely aim at imparting bookish knowledge to students, because knowledge which cannot be put to use has very little utilitarian value. Thus, the curriculum in an educational institution should not be fixed rigidly, but it should be kept plastic and modifiable to suit individual differences. After all, learning is acquired by a learner and not by a mechanical process of transmission of educational materials from a teacher. One of the main functions of a teacher is to motivate learning in the students. The aim of the teacher should be to widen the outlook of the students so that they may be able to live as one community and reach the truth. This community must have unity amidst diversity in the group. It should be firmly ingrained in the minds of students that the positive value of co-existence far outweighs the negative value of conflict created due to individual differences.

The main purpose of education consists in developing and strengthening the purposive aspect of a growing individual. The
educational atmosphere should be of such a nature that students are willingly induced to apprehend the political and social environments in all their aspects as clearly as possible. Therefore, the educators should acquaint students with the history of human achievements down the ages and walks of life. The educators have to see that the students critically appreciate the actual achievements of earlier and contemporary creative persons without blindly following their methods and accepting the results of their investigations. And finally, after an individual has acquired clear knowledge of physical and social environments and has appreciation for the history of human achievements in as many fields of human experience as possible, he is fully equipped to enter the most important phase of the educative process, that is the stage of the creation, of novel and original values. Creativity is the supreme end of the educative process. Educational institutions should serve as beacon lights so that there can be a diffusion of these values. The best that is conceivable in human culture diffuses from centers of creative education.

Considering the aspect of democracy in Indian society, education assumed significance as an agent that fosters qualities like intelligence and ability public spirit and independence in the electorate. Otherwise, as is the case today, an uneducated or half-educated democracy will tend to place men of forensic ability, political dexterity or money power in important positions in society. Such a tendency ultimately corrupts the spirit of democracy – the spirit that grants the maximum amount of freedom to the maximum citizens and also affords maximum opportunities for self development and social progress.

As it can be derived from the ideas of Swamiji, it can be said that the new spirit infused by education, consists in an increased
emphasis on the application of science to human affairs and the development of social solidarity. The progress of a national depends upon the rightful use of the productive forces that science supplies us with. The dangers which threaten civilization today can be traceable to the failure to make rightful use of the productive forces science supplies with us.

This failure can be remedied by understanding that science supplies us with new methods of learning and self-development. Our learning should not simply emphasize the values of science but also the values of arousing our imagination. Our learning must be able to give us an inspiring vision of the reign of justice and fair play on earth – as Swamiji says that our education must make us citizens of humanity. It must infuse the spirit of compassion and social service in us, so that we can bring about actual change in society through our education and resources. It is in this way that man's mind can be lifted out of the common ruts of thought and action in religion and social organization. Science may develop in us the readiness to face change, adaptability, accuracy of observation, honesty of thought and open-mindedness, but all this is not enough. Men also need to secure confidence in the values of the spirit. Those who help us secure such confidence also make contributions to civilization quite as constructive and practical as leaders of science and captains of industry.

It can be said that Swamiji Vivekananda brings out the inherent value of education through a practical and utilitarian orientation. He explains how it humanizes and elevates man by bringing out his spiritual character. A spiritual character is not a renunciate but a person of strong convictions, who acts from a positive attitude to construct society on humanitarian ideals. Swamiji rightly expresses that education is the training which raises man from the level of a
mere creature, shaped by forces outside it, to a self-reliant, dignified person, who is aware of the divinity and perfection that he as a human agent is capable of unfolding. A nation's self-reliance depends upon the degree of self-reliance of its members. Dependence signifies weakness, self-reliance strength. Self-reliance comes through education. Swamiji has beautifully expressed that education is the manifestation of the perfection already in man. For achieving this perfection Swamiji has given guidelines. He wanted education to be truly Indian and oriented towards full human development.

Thus, the purpose of education as the unfoldment of one's spirituality transcended the parameters of college and university education.

Swamiji's views on education reflected his catholic and scientific attitude, in which he perceived education as an agent of the economic and material progress of a society, but more so as a powerful agent that transforms man into a socially and morally worthy human being. The idea of the unfoldment of the perfection inherent in the consciousness of man through education is also significant because this unfoldment in turn contributes to the perfection of the society of which one is a member. Swamiji's idea of progress of the consciousness of man from the social practical level of life to the moral and finally to the highest spiritual level through man-making education gives us an extremely dignified, optimistic and realistic picture of the human personality.

Education was therefore, considered as the means of human growth in the three human dimensions – physical, mental and spiritual.
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