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Email: jig_har@yahoo.com

APJ Abdul Kalam's Thoughts on Education System as Reflected in his Writings

Rajnikant S. Dodiya

M.A., M.Ed., NET(Edu)

PhD Scholar, Dept of Education

Sardar Patel University

VV Nagar (Gujarat)

Abstracts

Abdul Kalam was one of the great visionaries who contributed with his all round abilities to the nation. The present study deals with his great vision for education and its development in all perspectives. The study relates with the educational thoughts of Dr. APJ Abdul Kalam as reflected in his writings. To examine Abdul Kalam's thoughts on Education System is an important part of this study. His educational thoughts are many in numbers from which the thoughts on Education System include the problems in today's education system, the requirements of education system and important policies to be established in order to improve the whole system of education thoroughly. The study includes the analysis and interpretation of the thoughts regarding these points. At the end the findings and observations regarding the problem, requirement and policies of education are derived.

Keywords: Education System, policies, objectives, approach of education

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Introduction

Education is one of the greatest and finest services provided to the people of any country in the world. It provides various opportunities to an individual to be capable of living a good and prosperous life. In this modern era, it is impossible for a human being to achieve anything without being educated. It has been occupying the place of top priority among all other things in the developed countries. In words of K C Chakrabarty (2011), "*Education, as you are aware, is vital to the human resources development and empowerment in the stages of growth of a nation. In any education system, higher education encompassing Management, Engineering, Medicines etc., plays a major role in imparting knowledge, values, and developing skills and, in the process, increase the growth and productivity of the nation.*" Therefore, education has a very vital role to play for the growth and development of people and of the nation. How the education service works, how it is expanded to the all nooks and corners of the country, how the remotest individual is benefited with education and how it is explored to all with equal opportunities for all men and women are the important factors of the system of education. The growth and enhancement of education thoroughly depends on how its system works keeping in mind the good of the people. Recently, there are major problems including dropouts of children in primary and secondary education, lack of vocational training, a big gap between rich and poor children acquiring education in schools and the subjects less oriented to career options in future. The Education system is the platform for making policies and establishing norms in order to solve such problems and develop as well as enhance proper education for every individual in the country. It mainly refers to rules and regulations related to education imparting in the schools and colleges. It also includes all the necessary resources, amenities and equipments for good education in the institutions. Abdul Kalam talked about the burning issues and problems of education at all levels and its possible solutions in his books. According to Kalam, "*We cannot continue to deliver a 20th century, scientific-management factory-model education. This new context of*

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the 21st century requires that we redefine 'education', 'school', curriculum', 'teacher', and 'learner'.(Kalam, *You are Born to Blossom*, p.146)” Kalam opined that the education system must revise and reform the policies according to the future needs and requirements.

Significance of the Study

The education system runs on the policies and regulations reformed time to time. The present study analyzed Abdul Kalam's thoughts regarding the policies of education that may affect the whole education system. This study can be helpful to policy makers and educationists for constructing newer policies and principles of education that demands changes time to time. The study can help in getting ideas regarding new plan of education, new aims and objectives of education, curriculum making and new educational policies and practices suitable to the future needs.

Objectives of the Study

1. To study the thoughts of Abdul Kalam on Education System as reflected in his writings.
2. To examine the Problems of Education System according to Abdul Kalam.
3. To suggest the Policies for Education System.

Research Questions

1. What are the thoughts of Abdul Kalam on Education System?
2. What are the Problems of Education System according to Abdul Kalam?
3. What are the required Policies in Education System according to Abdul Kalam?

Research Methodology

The present work belongs to the philosophical type. It is an attempt to study the thoughts of Abdul Kalam on Education System which definitely need some philosophical description as well as analysis of the content. So the research method for the study is Content Analysis Method in Qualitative Interpretation of the thoughts of Abdul Kalam on education system.

Population and Sample

The population of the present study is the writings of APJ Abdul Kalam which involve his books, articles and materials related to him. From these, six books of Abdul Kalam that reflect the thoughts on Education System are taken as the sample of the present study. The selected books are listed below along with the publishing year:

- (1) Ignited Minds (2003)
- (2) Mission India (2005)
- (3) Indomitable Spirit (2010)
- (4) Manifesto For Change (2014)

- (5) You Are Born To Blossom (2015)
 (6) Advantage India (2015)

Data Collection

The collection of data is done through the first and second reading of the books selected for the study. The researcher first understood the major ideas and perspectives of APJ Abdul Kalam on education system in the first reading of the books. During the second reading, the researcher derived these thoughts on education and classified them into different idea units. The central work of the present study is determined through the both types of readings.

Data Analysis and Interpretation

In the present study, the researcher carried out a very careful analysis of each book and derived some significant ideas of education system. The analysis and interpretation of these ideas is done from the philosophical and educational point of view. The idea analysis scheme is utilized by the researcher here. The ideas and thoughts on Education System were analyzed according to the following sub-points:

- (1) Problems of Education System
- (2) Requirements in Education System
- (3) Policies of Education System

These idea groups were classified in tabulated form as follow:

Sr. No.	Statements	Keyword

Credibility Testing for Content Analysis

Credibility refers to the validity of qualitative research whether the analysis and interpretation are as par the natural laws and phenomenon and standards. *“Credibility criteria involves establishing that the results of qualitative research are credible or believable from the perspective of the participant in the research.”* (William, M.K. Trochim, 2006)

The scheme of analysis and interpretation of the educational ideas and events were given to the experts of education and philosophy. The credibility and validity of the analysis and interpretation work done by the researcher was checked by the experts and necessary suggestions were taken from them regarding the research. Then the final draft of the analysis and interpretation was prepared according to the suggestions and modifications done by the experts.

Problems in Education System

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Any Education system has always less or more problems in it. On the 54th foundation day of IIT Bombay, Dr. Kalam stated, *"In the present context, the education system has to be designed in a way that produces large number of employment generators and not just employment seekers.* (Lecture on 54th foundation Day of IIT, Bombay)" Kalam narrated such policy related and educational methods and approach related issues in his books.

Abdul Kalam describes the issues of unnecessary burden and pressure on the children from the education system. It creates frustration and anxiety in the minds of the students and as a result they become devoid of education. There is a problem of wrong approach of the education system and authority towards the students. Today's system of education demands unnecessary load of syllabus leading to dropout of students. Kalam admits, *"At present, only after 10th standard are students allowed to choose their streams, such as science, math or computer science, economics, commerce and vocational courses.* (Kalam, *Manifesto for Change*, p.187)" Abdul Kalam advocates four year stream after 8th standard to reduce stress of students and to avoid dropouts. He opines, *"...we need to design multiple course options and choice of subjects based on the higher education system..."* (Kalam, *Manifesto for Change*, p.187)" The students should be given opportunities of selecting subjects of their choice and ability. The parents, teachers and the schools should not pressurize the students for study those subjects they don't like or they are unable to comprehend. They should allow the students to lead in their study in their own way but in the proper guidance and direction of the parents and the teachers. Further, Kalam opined that the education system in the country is on the wrong course today. The students are attracted to getting good jobs and be settled in life. This makes them devoid of the world opportunities and facing bigger challenges.

Major Requirements in Education system

The requirements of education system today are many which include bringing necessary changes in teaching methods and learning process in the school, enhancing vocational education opportunities for students, establishing rules for adequate research grants, increasing the skills of students and nurturing them and upgrading curriculum so as the students cannot feel unnecessary burden. Abdul Kalam wanted these requirements to be fulfilled in today's education system.

The first and foremost requirement is to bring positive changes in teaching, syllabus and teacher in the schools. The teaching methods used in schools do not really help students in capacity building and developing their skills. The teachers mostly give lectures and the students do not have enough chances for speaking and participating. This is really miserable

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thing when the teachers are the sole authority of class and a leader. Here, it is necessary to provide them opportunities for participating in each learning activities in the class. Capacity building should be the main objective in teaching process. The syllabus should be made more comprehensive and oriented to practical understanding on the part of the students. Then the teacher should impart skills to students and make them participate in leadership activities. This system of education in school needs to be changed for the betterment of education on the whole.

The education system today requires the students develop special capacities and abilities, i.e. research aptitude, creativity, innovations, technology aptitude, entrepreneurial aptitude and moral leadership. Abdul Kalam asks, *“Can we sow the seeds of capacity-building amongst the students?(Kalam, You are born to Blossom, p.96)”* It is the major responsibility of our education system that the students find opportunities to develop their capacities in school. Kalam suggested developing an attitude of research and enquiry into students’ mind. The students should be made capable of doing research studies and presenting innovative creations in school. The whole system needs to take care of this and nurture it till the end of school life. The teachers are the best minds in the school who can nurture this with their abundant knowledge and teaching skills. Small research works, presenting in seminar and workshops, scientific assignment and tutorials, tasks related to technology and computer should be given to the students in order to nurture the core capacities of the students. Some students should be given the task of a leader of the whole class, of any subject or any learning program organized in class. The teacher has to observe them and guide them to be a good moral leader having the disposition to do right thing in every situation arising in class and later on in the school. A well balanced educational model is the need of the education system to reach this success in the school.

Further Abdul Kalam suggested that the youth of the nation should be empowered with immense courage and conviction. Kalam asked the young students to take research activities with the spirit of *I can do it*. He admitted, *“When the students graduate, approximately 10 percent of them take up research or some specialization. The remaining 90 percent of the graduates look for jobs.(Kalam, You are born to Blossom, p.99)”* Kalam expects from the education system to motivate the youth do think innovative and take up challenges of building a nation. The schools and institutions should create an enabling environment to bring capacities and skills out of the students. Kalam says, *“We cannot continue to deliver a 20th century, scientific-management factory-model education. This new context of the 21st century requires that we redefine ‘education’, ‘school’, curriculum’*,

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'teacher', and 'learner'.(Kalam, *You are born to Blossom*, p.146)” The concept of teaching should be changed and added newer ideas of encouraging the students to take up challenges and become strong. Education that can truly help the students is the need of the contemporary time. Kalam suggested that the education system needs to change the approach of teaching to coaching mode. The teachers with coaching, facilitating, motivating and encouraging approach should be appointed in schools. The school curriculum, teaching methods and educational policies should be decided keeping in mind this innovative mode of education.

Other major requirements are developing entrepreneurial and vocational skills in students through making important changes in the education system. The students should be imparted knowledge with skills and comprehension. The education system should construct the syllabus including vocational education subjects. The students should be encouraged by the teachers to select vocational subjects and develop their entrepreneurial skills. Kalam wants employment generators rather than employment seekers. Hence, the students should be aimed at developing vocational abilities enough to establish their own enterprises and generate wealth. Kalam suggests, *“The primary foundation for such action is the capability of the teachers at the school level from primary to higher secondary level and creation of a revamped national quality teacher education system.*(Kalam, *Manifesto for Change*, p.191)” Further they should not be burdened with big load of syllabus and books. The burden of syllabus puts an obstacle on the way of learning vocational skills that can be useful for them in future. The education system should remove such burden from the mind and shoulders of the students and allow them to learn vocational skills through including vocational education in schools.

The next important requirement the education system should fulfill is to provide necessary fund for various educational activities going on in the schools and institutions. Kalam advocated providing adequate funds to the educational institutions in order to enhance the progress of education. Kalam advocates funding on the basis of annual assessment of the institutions based on certain criteria. The successful institutions should be provided big funds with a view to encouraging and motivating other institutions which are less developed or slower in development. Some rural area institutions can also be motivated by this encouraging step. If any institution gets lower results in all round assessment, the annual funds provided every year should be decreased at some extent. In the same way, if any institute performs better than the last year, it will be provided better funding than before. The grade system can also be established in which well performing institutions are given A grades

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and the poor performing institutions are given C or D grades. This system of funding on the basis of gradation can be helpful in reforming and developing education.

Another important requirement is to open up lots of student vacancies in higher education so that every young student who is aspiring to study higher education can get admission. According to Kalam, *“There are high aspirations to enter into institutions of higher learning such as engineering, medical and specialized sciences. This is through a vicious competition.”* (Kalam, *You are Born to Blossom*, p.31) The students coming from backward communities and poor families, however they are brilliant and clever in study, face big problems getting into such institutions for higher study. The vacancies in such institutions are filled with those students who are from rich families. Therefore it is a great need to establish a provision for those students who cannot find their place in colleges in spite of their abilities and competency. Kalam suggests the government to make a provision for admission in the institutions. Moreover, more student vacancies can be added in these institutions so that more students can get into higher study. The government should provide extra funding to such institutions as well as public-private partnership can help in creating such investment. It should be taken as a mission and should be oriented towards reaching the future demands arising in the higher education.

In this way, the major requirements of education system include building capacities of the students, nurturing research ability as well as creativity and innovativeness of the students, more emphasis on coaching rather than teaching, skill based learning, no burden of syllabus, meeting the requirements of research grants and other funds, opening newer vacancies for admission into prestigious institutions and on the whole establishing provisions for reaching these requirements of education system.

Policies of Education System

The policies are the principles, rules and regulations of any system applied in order to run it well. The education policies also work in a way that helps in governing the education system of any nation. The educational policies are related to the admission rules, exam patterns, curriculum making, teaching-learning process, etc. Here, Abdul Kalam suggests the policies of education system regarding the RTE rule, private schools, educational model, teaching methods, examination approach, course, curriculum patterns, higher education, etc.

Today there is a need of educational policy that can reform recent education system thoroughly. Kalam admitted, *“The objective of school education should be an empowered education system.”* (Kalam, *Manifesto for Change*, p.187) Such an empowered system can be established by reformation policy of education. Total transformation should be the goal of

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such policy. It should include mainly the learning process of the students, effective teaching work, practical use of the subjects studied in schools, creativity and innovation by the students instead of memorizing the lessons of all subjects, more emphasis on learning rather than passing the examinations only, etc. Kalam advocated developing high IQ and EQ based creative classroom, creative syllabus and creative laboratory in all schools which can enhance comprehensive and meaningful learning on the part of the students rather than leading them towards becoming a book worm. The teacher and students relationship should be friendly and interactive in such classrooms. There should be collaborative and participatory educational process between the teacher and his students as well as among the students in such class. Group debates, seminars, workshops and project works can be the most useful learning activities in such classrooms. A more encouraging and motivational educational climate is the great need for developing the students in this direction. Hence the system itself should make necessary changes and do additions in the contemporary education system. As Abdul Kalam said, *“A good educational model is the need of the hour to ensure that the students develop as enlightened citizens and also participate in national development mission. (Kalam, Manifesto for Change, p.183)”*

Further Kalam suggested to assess the students’ ability on the basis of the skills they have developed rather than the questions given in the exam papers. The learning of students is more important than the theory of books. Kalam advocated skill development activities from the very second standard of the school. Hence the education system should concentrate on developing the skills and ability of the students rather than making them pass the exams. The policy for teaching methods and approach should be established in school education system. Moreover, the teachers who help the students in skill development should be provided special benefits. Moreover, Kalam suggested multiple course options for the students so that they can find the best course for them suitable to the career opportunities in the future. The course should be designed according to the higher education curriculum and employment opportunities. Kalam also suggested bringing a four year stream after standard no.8. It should include various faculties and should be oriented towards the best career options for the students after university education. Kalam advocated changing the curriculum every three years and it should be as per the future needs of the country. Further the school and college curriculum should include qualities of ethics, integrity, honesty, aptitude, moral values and culture. The curriculum should develop ethical qualities in the students and make them morally competent. If the school curriculum cannot impart and teach values and moral conducts, it is of no use to the students. These are the main lessons the students must learn in

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school and develop in their personality. Moreover, the students should also learn how to collaborate and communicate with each other. A good positive interaction among the students should be one of the best things in teaching-learning process in class. Hence, the policy for making school curriculum should be made in the education system.

For the policy of education system for higher or university education, Kalam suggested that the universities should have authority of taking big decisions regarding admission process, recruitment process, using the funds, etc. The policy for universities should include all and sole authority in a way that no any political party or people cannot interfere it for their personal benefits. Sometime it happens that local and state political parties do pressure on the universities regarding the recruitment of staff, admission process and development of infrastructures which later on affects the quality of education and can ruin the future of the young students. Kalam opined, *“The universities and institutions have to be made autonomous to decide on their own syllabus.”* (Kalam, *Manifesto for Change*, p.193) Such action should be taken by the government in order to make the universities utilize their human resources and set the syllabus according to the global standard. Further this syllabus should be updated and upgraded with the help of educationists and subject experts. The universities can create a committee or panel of such experts who can give their precious suggestions and recommendations to the university in order to construct the syllabus of higher education. These panels should be separate according to different faculties and streams of education.

At the same time, the universities should be brought under the policy rules and regulations so that the decisions made by them do not harm the educational progress of the nation. *“The government should announce standards for establishing an institution, college and university.”* (Kalam, *Manifesto for Change*, p.193) Kalam asked for National Accreditation and Facilitation bill so that the universities of all states can be empowered in the area of teaching and research. The government should keep watch that all the universities and institutions follow the regulations and standards of such bill. Kalam admitted, *“These should be applicable to all existing and new institutions teaching the arts, science, management, engineering, medical and other professional courses.”* (Kalam, *Manifesto for Change*, p.193) Further it should be checked that these universities and institutions are following the guidelines or not. The parameters should be established for evaluating these institutions which should include mainly the research facilities, laboratories, educational facilities such as infrastructure and equipments, syllabus for teaching, their participation in extra-curricular activities, etc. Kalam said, *“Once the university, college or institution has*

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been rated, it would be eligible to get the funding from the government without any further administrative and bureaucratic control.(Kalam, *Manifesto for Change*, p.193)” Thus, the policy of education system for university education should be made and implemented in time as well as follow up work should be done by the government. The RTI (Right to Information) act must be applied to all these institutions and universities so that total transparency and credibility can be established in the education system.

Further Kalam asked for an appropriate policy for private schools and its administration. It is seen in the near future that the private schools will take the place of the government schools and granted schools or government aided schools. The government has brought RTE (Right to Education) act in 2009 which includes all the important rules and regulations regarding school education. However some problems occur with this act as the private institutions don't follow it completely. Here it has become necessary that the government recognize such institutions and make policy for them. Such schools should be provided funding on per child cost basis. Today the quota of 25% students from rural and poor families has been decided by RTE. Many of the private institutions follow this rule and give admission to poor students. The government provides the education fee and other expense of these 25% students to these institutions. Thus, total implementation of this Act should be done under the regulation determined by the government.

Findings and Discussions

- (1) There is a problem of wrong approach of the education system and the authority towards the students. A burden of syllabus and books creates unnecessary frustration and stress on the minds of the students which results into dropouts.
- (2) The education system needs to focus on reducing unnecessary burden of syllabus and books. The same foundation course for all, multiple course options and choice of subjects can reduce this burden at some extent.
- (3) The school and college curriculum needs to be revised in order to develop the students according to the requirement of a developing country to which they can contribute in future. This can also prepare students for the fundamental challenges of living.
- (4) It is important that the students of poor family background avail good education in schools and colleges. Only the rich and privileged family students are not be given too much access in getting good education.

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- (5) The teaching methods used in schools do not really help students in capacity building and developing their skills which can be made main objective of teaching process. The teachers impart the skills and make the students participate in learning activities is one of the main objectives of education.
- (6) The education system requires the students develop special capacities and abilities such as research aptitude, creativity, innovation, technology aptitude, entrepreneurial skills and moral leadership.
- (7) It is important that the education system provides space for research activities in schools and colleges. The students have immense capabilities and skills that can be utilized by making them participate in research activities, seminars, workshops, scientific assignments, tutorials, computer aided tasks, etc.
- (8) The schools and colleges can create more enabling and motivating environment in order to bring out the capacities and skills of students. Such an environment will encourage them to take up challenges and become strong.
- (9) The education system needs to change the approach of teaching to coaching mode. The school curriculum, teaching methods and approaches and the educational policies can be reformed keeping in mind this innovative mode of education.
- (10) The progress of education needs adequate funding regularly. This can be done on the basis of the annual assessment of the institutions on certain criteria. Performance is kept in mind in determining this. It can be helpful in reforming and developing education.
- (11) The student vacancies need to be increased in higher education so that every young student who is aspiring to study higher can get admission. Here, a provision for adequate student vacancies can be made by the educational authorities.
- (12) Public-private partnership can be helpful in getting more funding for the betterment of education. It is a mission to move ahead and make it successful so that the higher educational institutions can rise higher.
- (13) An empowered education system can be established through policy reformation in all round way that can benefit the students more than any other else. The learning process of students, effective teaching work, practical use of knowledge, creativity and innovation instead of memorizing the lessons and emphasis on learning rather than passing the examinations are the key points of such a system.

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- (14) There is a need to develop high IQ and EQ based creative classroom, creative syllabus and creative laboratory in all schools which can enhance comprehensive and meaning learning on the part of the students.
- (15) The policy for teaching methods and approach needs to be reformed in school education system. The reforming policy will give more emphasis on developing skills and ability rather than passing the examination only.
- (16) The curriculum is the very essential part of education system that needs to be reformed every three years as par the future demands. A more collaborative and communicative syllabus enhances the learning of the students and makes it more effective and long lasting.
- (17) The universities need to be given authority of taking necessary decisions in a way that no political party or people can interfere into it for their personal benefits. They can be made autonomous to determine their own syllabus, make recruitments and do admissions.
- (18) The standards and norms for universities need to be reformed through National Accreditation and Facilitation bill. The funding for infrastructure and other things can be provided to the universities according to the ratings of such bill.
- (19) The guidelines for implementing Right to Education Act (RTE) need to be made more clear and understandable to all. Its basic benefits can be made known to the needy people of the country. It is important that it is implemented compulsorily in government and private institutions.

Educational Implications

1. Creativity-oriented syllabus should be constructed in order to learn some specific skills useful in life. This should be done especially in the primary education where the skills and capacities of little children can be blossomed fully.
2. The adequate facilities and infrastructures like laboratories, libraries, internet, etc. should be provided to all the schools and colleges in order to enhance the education among young students.
3. The unnecessary burden of books and syllabus that create frustration and stress on the minds of the students should be removed from the school education system.
4. The school and college curriculum should be revised as par the global requirements. A more collaborative and communicative syllabus should be constructed which is more effective and long lasting.

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5. The students should be motivated towards doing research activities on small scales as well as participating in seminars, workshops, scientific assignments, tutorials and computer-aided tasks.

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