

Outcome Based Education Model for Technical Education Institutes

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Abstract :

In this contribution a novel methodology called Leadership Learning Model is proposed for increasing the outcome based education in technical education institutes. This model creates a platform where students and faculty can work collectively for academics as well as for student's area of interest and leads to skill set development in their concerned areas. Keeping in the view of outcome based education, skill set empowerment and student psychology; Eight clubs were designed based on Gardner multiple intelligence concepts and developed by considering broad domains of engineering, social and personal interests of students. Further a rural area located technical education institute: Aditya Institute of Technology and Management –Tekkali, India has been considered for testing the proposed model. A group of students were identified randomly as leadership students for testing the model and were allowed to identify their area of interest based on some preliminary competitions. Accordingly they have been kept in corresponding clubs and are given support to work for the club. The model is successfully implemented in the campus and is kept under observation for three consecutive academic years. It is found effective and efficient model in developing a student in his interested area which leads to skillset empowerment and increased employability and entrepreneurship.

Keywords-*Employability; Leadership; Outcome, Students.*

I. Introduction

In the recent past technical education has greatly influenced by some social and physical factors like Revenue of the institute, Profit margins and Intake of fresh students. Revenue of the institute is the factor which greatly affects the

institute in several aspects which plays a key role in deciding with “what is what in the institute and for the institute”. If the revenue of the institute loses its balance, all the students and employees welfare will be restricted to a major aspect. In the journey of monitoring the institute in a proper manner by meeting the standards laid by educational authorities of India like All India[1-2] Council for Technical Education-India (AICTE), University Grants Commission-India (UGC) most of the managements run behind profit making out of their own institutes. As education system has already became an open business system in many parts of India and all over the world. As majority of the institutes run behind the profit making and are ignoring with the quality of the educational system. As the quality of the system is ruined the students are redirected to enigmatic environment in terms of finishing school factors like higher education and employability. Rather than empowering the skill set and outcomes of the students, they are pulled to much lower standards in terms of Creativity, Discipline and intelligence which are clearly depicted in Fig. 1, in which students were admitted to the institute and are subjected to its educational system which acts an industry and the required skills for an educated personality were drained as an effluent of the corresponding industry, now semi-skilled or low talented fresh graduates were awarded with degrees to face the global challenges in the technical world and face the highly competitive market of the employees to survive with their future. With the concern of all these situations taking into grant and believing that the future is not in the hands of fate but in ours and our next generations. A model is developed in this contribution which is a novel methodology is titled as Leadership Model is proposed for enhancing the outcome in terms of technical skills and talent based the education in technical education institutes. Leadership model creates a platform for students to work on their area of interest and leads to skill set development in their concerned areas. Keeping in the view of outcome based education, skill set empowerment and student psychology; Eight clubs were designed considering broad domains of engineering, social and personal interests of a student. All these clubs were designed based on Gardner Theory of multiple intelligence concepts [3]. According to Garner Multiple Intelligence theory human beings possess 9 intelligence and out which a few intelligences were identified for forming the clubs. The human intelligence identified and their relationships with students were explained in detailed in the subsequent sections. The clubs formed were

- WebApps Club, Robotics Club and Incubation Club related to engineering domains.
- Eco Club, Events Club, Sponsors Club related to social interests.
- Cultural Club, Sports club, Media Club for individual interests of a student

Now to test and validate the proposed model an educational institute with smooth management and willingness to sponsor the running cost of the model and dedicate the students time is required, for this purpose an Indian rural area located technical education institute: Aditya Institute of Technology and Management –Tekkali [4], India has been considered. The rural area located institution is identified with a concern that majority of the students entering such an institute will be from rural area or local area here, so there will be scope that the model and the faculty were exhibited to work in stress conditions and much inputs were required to make the model .

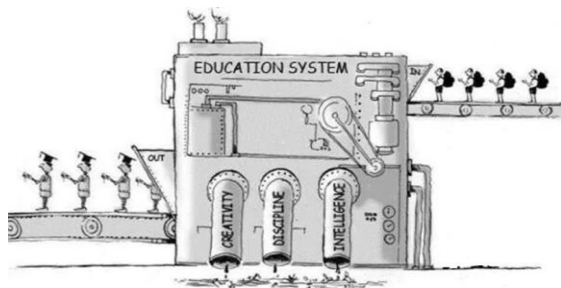


Figure. 1 A ruined educational system

implement and bring desired outputs from the performance of the students. Now a group of students were identified randomly as leadership students for testing the model and were allowed to identify their area of interest based on some preliminary competitions namely “Panchatantra” and “Pravasha” Subsequently they were put in corresponding clubs based on their performance in Panchatantra and Pravasha. After clubs formation these students were given support of a faculty members and financial aiding while working in the clubs for his or her own interest.. The proposed model is successfully implemented in the campus and the same is kept under execution and observation for three consecutive academic years and found that the implemented model is effective and efficient model in developing a student in his interested area which leads to skillset empowerment and increased employability and entrepreneurship.

II . Proposed Leadership Model:

After surveying students, faculties, management and corporate sectors, Focus is given to develop a model in which students and faculty can work collaboratively for academics and for student’s interest. Initially a group of students were identified randomly as leadership students and their interest has been tested and found that each and every student possesses intelligence and there is no hierarchy among those intelligences. As the student will have much interest in a particular intelligence Gardner intelligence modes have been used to classify the students based on intelligence and club formation as bellows:

- **Linguistic Intelligence:** The students who understand the relationship between communication and meaning and they are good at words, language, writing, speaking, retention, interpretation and expressing their ideas and information via language were placed in “Events Club”.
- **Logical/ Mathematical Intelligence:** The students who understand the relationship between cause and effect towards a tangible outcome or result. Those who are good at identification, analysing and innovation are placed in “Robotics Club” and “Incubation Club”.
- **Musical Intelligence:** The students who understand the relationship between sound feeling and acts according to the environment were placed in “Cultural Club”.
- **Spatial/ Visual Intelligence:** The students who understand the relationship between images and meanings and relationship between space and its nature and thinks for the novel effect that adds value to the space were placed in “Media Club” and “WebApps Club”.

- **Interpersonal Intelligence:** The students who understand the relationship between people and their situation including the surrounding people and act accordingly to balance the situation are placed in “Social Club” and “Sponsors Club”.
- **Kinesthetic /Bodily Intelligence:** The students who have body movements control, physical agility and balance, eye and body coordination and have low reaction time were placed in “Sports Club” and “Cultural Club”.
- **Natural and environmental Intelligence:** The students who understand the relationship between natural living and comfort living and as well as long living and are concerned with the surroundings are placed in “Eco Club”.

Why Leadership Model?

The students subjected such a programme in the academic institutions will have acquired the values of life and will be able to survive in his life with increased moral values and lives a responsible life in his world and contributes to his personal and national growth. The outcomes and qualities of the leadership students were projected in Figure.2.



Figure.2 Outcomes of Proposed Model

- **Vision & Values:** The student will be made to identify and clear of his/her vision and will be enabled to focus and work for that vision and such a students will have their own values for themselves and the process.
- **Corporate governance:** Student will be able to identify the local industrial needs and work/think and act accordingly so that the student will be easily employable which serves the purpose of outcome based education.
- **People Excellence:** As the student will be made to work in groups within their clubs, He or she will identify the importance of team work and enhance their ability of working within the team to accomplish the tasks much effectively and efficiently.
- **Innovation:** Leadership student will be in a position to identify the required change in their area of interest which is nothing but innovation which brings high dimensional tasks to friendly environments.

- **Placements:** As the student will be good and expertise at their area of interests and will be aware of the new technologies in that area which will be the usage of the utilities and industries the probability of getting employment will be increased.
- **Brand Ambassador:** After recognised with his skill and expertise in his area he gets reputation and will be a brand ambassador for his area. Example: M. S. Hussian, for his painting.
- **Infrastructure:** The student will be able to understand with what sort of process is to be involved with the process and include the hardware and software requirements for the economic and safer operation of the process.
- **Good Citizens:** Leadership students will act as good and required citizens for the nation as the acquired outcome and abilities of the student adds to the development of the nation.

III . DNA of Leadership Model:

The development of the leadership student and passage of leadership outcome information is conceptualized and explained using the architecture of a biological deoxyribonucleic acid (DNA). As biological DNA carries and passes the genetic information, the Leadership DNA transmits the ontogenetic information of the leadership student and leadership model. To explain the entire architecture it has been labelled alphabetically [5] as shown in Figure. 3. Where each alphabet has its own significance as explained below with corresponding labeling.

- **Invigorate:** The leadership student begin the chain process by attending and participating in the events, workshops and seminars organised by different clubs at Leadership Learning Center (LLC). LLC is to be established in the institute campus where the model is to be implemented [6].
- **Implementation:** Based on the grasping or learning during the training sessions at Club Level in LLC, the student act or work for his implementation for the new technology in his respective club for developing new projects.
- **Imbibe:** The students still further participate in closed study group within the club and club members which helps them imbibe the essence of the Leadership clubs learning approach.
- **Impact:** The enhanced innovative level and outcome of the student creates positive platform towards his employability and entrepreneurship.
- **Institutionalize:** The committed leadership student propagates their innovations and thoughts across the student community through various channels with the objective of building employability and entrepreneurship skills. They institutionalize the changes within their institutes by motivating other students who are not leadership students to adapt Leadership learning club model and its methodology activities.

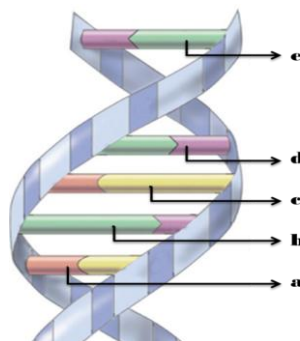


Figure.3. The DNA Of the proposed model.

Conclusion

Leadership learning method, a novel methodology is proposed to inculcate and enhance the outcome based education in technical educations. This model is based on divide and learning process, where the students were divided in groups called as clubs. The clubs were designed based on several factors by their interested areas. This club based learning creates a platform where the students and faculty can work together in the interested areas of the student. The proposed model is implemented and the case study of implementation, preliminary competitions for club formations will be discussed in further contributions of the work. The present model is good for the student in

- Bringing out skills of the students and make them work on it to make him an expertise in his domain.
- Enhancing outcome based education which is highly essential [7-8] for technical students.
- Creating the path for the students in enhancing the employability and entrepreneurship skills.

FURTHER CONTRIBUTION

In further contribution towards the outcome based education, the proposed model implementation, case study of the campus under consideration, the developments among the students and future perspectives of the same learning methodology will be described.

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