

Enhancing Research and Innovation in Higher Education

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Abstract— Research and Innovation are considered as the two important pillars of higher education. Without research and innovation which improves human life, higher education is not complete and the society cannot grow. The significance of research has much more importance in developing countries as compared to the developed ones. The developing countries now need to give more focus towards research and innovation, which is possible by enhancing research culture in the institutes of higher education. This paper focuses on boosting research and innovation in the higher educational institutes and universities. The first section of the paper elaborates the meaning of research and innovation while the last section of the paper spotlights on building the positive and encouraging environment for research. Each attribute of the research environment is also explained in this section.

Keywords— Research, Innovation, Higher Education

I. INTRODUCTION

“Innovation distinguishes between a leader and a follower.” –Steve Jobs.

Research and innovation is the need of hour for any state or country, and without the same no one in this competitive world can survive for long. Many examples have been produced in the past which have demonstrated that the organizations which adopted change with innovated ideas are the most successful ones in contrast to those who left without innovation & research and hence demolished from the market at all. For developing nations it is crucial to focus on promoting research institutes and universities of higher education which in turn focus on leveraging the potential benefits from the innovative ideas, processes and products proposed by the intellectual individuals. But, it is to be kept in mind that research and innovation is not a matter of one day, it is a gradual process and takes years to come up with fruitful results and implementation of new ideas and products.

II. UNDERSTANDING THE MEANING

To promote the culture of research in an academic or research establishment the very first thing is to actually understand the meaning and significance of research and innovation. Research and innovation are two different components when combined in an effective manner produce charismatic results.

A. Research

Many definitions of research have been given by authors and scientists. According to Godwin Colibao [1] "In the broad sense of the word, the definition of research includes gathering of data, information, and facts for the advancement of knowledge". John W. Creswell [2] defines research as "a process of steps used to collect and analyze information to increase our understanding of a topic or issue". This definition consists of three steps create a question, collect data to answer the question, and finally present an answer to the posed question. Cambridge dictionary [3] defines research as "detailed study of a subject, especially in order to discover (new) information or reach a (new) understanding".

In nutshell research comprises of in depth study of the subject area to gather findings, then framing a question with inherent originality, finding the solution for the framed question and finally justifying that the question framed and solution given is logically advanced than the existing literature related to the subject area. Originality is the fundamental component of true research work without which research work is merely a theoretical study and probability of practical advancement is very less.

Academic and research institutions must focus on the concept of true research and spread the same among the individuals involved in research activities. Academic leaders must ensure that quality research is being carried out by students, faculty and researchers of the institution.

B. Innovation

Innovation is introducing anything in a new way whether it is a product, process, service or business which is improved and beneficial than the existing ones. From the history of human being it is evident that innovation is the natural attribute. Since the long years ago human has been continuously innovating the things to improve the livelihood. Innovation is generation of new ideas and implementing the same in order to make a better world.

It is the responsibility of Academic Leaders to encourage innovative ideas and provide the platform for implementation of the same in the form of successful product, process, service or business. They must utilize young brains of faculty and students to extract the juice of innovative thoughts by providing them full support and guide them appropriately. Even in today's scenario many higher educational institutions just follow only the documented curriculum required to attain the degree and do not focus on evolving the young students as innovators which is very important. These institutions are basically killing the innovation which is not vital for the growth of the country.

Every academic institution whether it is of higher education or basic education must give more importance towards self evolvement of a student because when an individual is evolved he or she can innovate and only then can provide valuable contribution in nation building.

III. BUILDING THE ENVIRONMENT

In Indian context it can be seen that in government educational institutions there is no constraint on the infrastructure and resources required for research as they are funded by state or central government. But when it comes to private institutions and universities which are self financed the budget for research infrastructure is limited which is a barrier in promoting the research and innovation and we must realize that private or self financed educational institutes and universities covers a major part of education sector in India. So without promoting and supporting these establishments in the area of research the potential of young talent who are a part of the same institutions cannot be utilized completely. So, there is an urgent need to build up policy for the higher education for the whole country in which there is a provision of public private partnership in the field of higher education and research.

To boost the research and innovation in a college, institute, university or any other academic establishment there is a need of constructing the physical and psychological environment that supports research culture and innovative ideas. It is the duty of academic leaders to create an atmosphere where individuals are motivated, supported and appreciated for carrying out quality research at the same time providing them necessary infrastructure and resources. A positive and encouraging environment for research and innovation can be fabricated if the factors shown in Figure 1 are taken up sincerely.

A. Motivate Individuals

The very first thing to build positive environment for research is motivating individuals in an academic and research institute. Academic leaders at all levels should ensure that they somehow are able to influence their colleagues and subordinates or students towards research. They must convince them that

active engagement in research activities will lead to the development of the individual and the institute which in turn will lead to the development of the whole country and society.

B. Provide Infrastructure & Resources

Infrastructure and resources including laboratories, equipments, computers, software, books, journals, periodicals, magazines etc. required to process the research work must be provided to the people by academic institutes. Any kind of deficiency or unavailability of proper resources will certainly depress the individuals or groups involved in research.

C. Offer Flexibility

Original research takes birth from relaxed minds and cannot be initiated forcefully. Creation of innovative research ideas demands flexibility in terms of work schedule of the faculty and students. Academic leaders should provide flexibility to the students and faculty so that they can devote extra time towards inventive thinking. Often in private institutes flexibility is constrained due to the fixed time table and working hours. The culture in such institutes must be changed and the academic leader should understand the importance of flexibility in an educational or research setting.



Figure 1– Boosting Research Environment

D. Give Support

In addition to physical infrastructure and resources leaders in an educational and research establishment must support the people psychologically. They should also support them with funds, grants and on duty leaves to represent their research work in good conferences, symposiums, journals etc. Academic Leaders should also give them some additional time to guide them and show the right path towards the success in their approach and work.

E. Appreciate

Appreciation is the best way to recognize and motivate an individual. Once the researcher, faculty or student has demonstrated the capabilities through quality research work and innovation he/she must be

appreciated by the academic leaders. Appreciation may take form of reward, appreciation certificate, gift and most importantly providing opportunities for professional growth. It gives a great satisfaction to an individual when he/she is appreciated by the leaders of the organization for outstanding performance.

V. CONCLUSION

For development of any country research and innovation are of utmost importance. This paper has highlighted the true meaning of research and innovation at the same time it also describes the role of research and innovation in nation building. A novel approach for enhancing research and innovation in higher educational institution has been presented and discussed in this article. Any institution or university if adopts and implements the approach presented in this paper, certainly the quality and quantity of research in that particular institute or university will be increased and therefore the work presented in this paper has a great significance to all individuals who are associated with the higher education.

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