Research and Innovation: A Contributor in Quality Improvement in Higher Education

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Abstract—Higher Education in any country of the world requires comprehensive and continuous research in all the disciplines and faculties to raise the standard and keep strict watch to maintain the quality level. Higher Education now a days is stressed to be applied in nature so that the results be utilized directly for the betterment of society. Regular appraisals, assessments are done to incorporate to improve the lacunae. Changing world impels the higher education to be upto date as they have to keep in mind the stakeholders perspective pertaining to employment and employability.

In this paper light is thrown on research activities needed to be performed at different levels—department level, State level and world level. Also It is discussed about the part played by the research and innovations in the betterment of higher education system. This shift in the idea is due to continuous change in world's conditions.

Key Terms # Research, Innovation and Higher Education.

Introduction

Technological advancement and knowledge transformation in world over impels the higher education to incorporate new researches and innovations as the context and market forces are varying. Research and Innovation are a pivot in higher education. New innovations are very important actor in the enhancement of quality in higher education system. Higher education has to be supplemented regularly to keep the check on quality standards. All these are very much enhanced and applied to link the education process to real life situations. For this comprehensive and continuous task, faculty has to be motivated and infused with new energy continuously. Institutes are also motivated to further the agenda of quality assurance. Students support services has to be Synergized.

Research is a major component in any Higher Education System. Each institution needs to be updated as well as have to be well equip with research components that make them standout from others. Higher Education Institutions also need to provide supported materials and resources to the faculty to promote research culture.

Research simply seeks the answer of the certain questions which have not been answered so far and the answers depend on human efforts. Actually research is simply the process of

arriving at dependable solution to a problem through planned and systematic collection, analysis and interpretation of data. Research is the very important process for advancing knowledge, for promoting progress and to enable man to relate more effectively to his environment to accomplish his purpose and resolve his problems.

Need Of Research and Innovation In Higher Education

Oxford Dictionary states that "make changes in something, especially by introducing new methods, ideas, or products"

- Research and Innovation brings the relevance between course and its application.
- Research and Innovation maintains the standard of higher education.
- 3. Research and Innovation gives impetus to running the course curriculum in higher education.
- 4. Research and Innovation impels the faculty to be motivated through new innovations
- 5. Research and Innovation break the monotony means shift from traditional to modern
- 6. It creates interest among students in teaching learning process.

How To Initiate Research And Innovation

The following things may be helpful in initiating the atmosphere for research and innovation in higher education.

- Incubation centers –Universities are to be converted into incubation centers where everyone is committed to creativity, cooperation and collective efforts for innovation.
- Regular refresher courses should be organize time to time.
- Use of modern technologies like teleconferencing, webinar etc. throw the free flow of knowledge
- Allocations of funds for the centers of learning

Regular research should be done at all the levels.
Research activities need to be organized at different levels
such as department level, state level and national level to
make the University as a Icon for developing the culture
of creating the knowledge and skill.

Recent Innovations In Higher Education

A brief account of recent innovations, good practices and different strategies in higher education to help in research and innovation for good quality is listed below:

- Information and Communication Technology: ICT has been made compulsory in teacher education programme by NCTE regulations 2014 for using in classroom teaching and learning. Now there is a shift from elearning 1. 0 (online learning) to e-learning 2. 0(Twitters and Facebook) to e-learning 3. 0 (semantic web),that from content to community to artificial intelligence. There is a quick shift from web- 1 to web- 2 to web -3. Open education courses and resources have been provided terms like e-learning, e-portfolio, webinar, e-content, e-pathshala have been common.
- SWAYAM: The MHRD, Government of India launched a massive open online courses (MOOCs) platform popularly known as SWAYAM(Study Web of Active Learning for Young Aspiring Minds) on 9 July, 2017. The portal is offering various online courses for school education and higher education including teacher education.
- SWAYAM PRABHA: The MHRD, Government of India has developed a learning plan for utilization of satellite communication technologies for transmission of educational e-contents through 32 National Channels i. e KISHORE SWAYAMPRABHA There are one way video conferencing and two way video conferencing.
- Mobile Learning: Mobile is used for learning in the country and across the globe. It connects anywhere, at any time across the globe. Learner can Learn any time according to their own convenience. (Yadav, 2018 level researches in higher education
- **Web Portals** -There are various online web portals available to enhance the learning of the learner.
- **E-Tutorial**: In This method the students getting instructional facilities, through web cameras students interact with their tutors and clear their doubts. Tutors provided the needed instructions to the students on topics.
- **Teleconferencing:** In this method peoples situated at distant places establish direct contact through communication and converse among themselves.
- DTH TV. DIET-NCERT is the national coordinator for one DTH TV channel, has been started feeding a 24'7

- educational channel from 9 July,2016. The focus is on teacher education programme.
- Mobile Learning: Mobile is used for learning in the country and across the globe. it connects anywhere, at any time across the globe. Learner can Learn any time according to their own convenience. (Yaday, 2018)
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- **Teleconferencing:** In this method peoples situated at distant places establish direct contact through communication and converse among themselves.
- Video conferencing: It is a face to face interaction with each other through web cameras. By creating an environment for research and innovation, this culture is made in the universities, colleges to develop them as Centre of excellence and it is for further strengthening the higher level researches in higher education. Even our Prime Minister on 9 April 2018 at grand finale of Smart India Hackathon said, "What will drive innovations are IPPP (Innovative, Patient, Produce and Prosper). Initiating the environment for research is not just the government job but it is mutual and society must contribute too."
- Virtual Education: It refers to instruction in a learning environment when teacher and students are separated by time or space, or both and the teacher applications, multimedia resources, the internet video conferencing etc.
- **E-Journals:** It is a new format only few years ago, are now commonplace in many libraries.

Suggestions to Improve the Research and Innovation Culture in India

- There should be regular monitoring of course in higher education.
- There should be coordination among different universities.
- There should be broadmindedness to accept the changes.
- Free hand funding for the quality research.
- NAAC should supervise the higher education from time to time.
- Researchers should be motivated for the quality research in higher education.

Conclusion

In nut shell we can say that research and innovations are very much needed in higher education to enhance its quality. In the institutes of higher education research and innovation play a central role in development of societies and economies. Research maintains the standards of higher education.

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