Chapter I

Introduction

Introduction

.Anything that is constant is change. Anything which causes change is innovative thinking and action. The process of development of mankind and society is full of stories of innovations and change. Innovations arise out of need as well as desire to improve upon existing situation in any society. This is facilitated and encouraged by level of understanding of persons about the social, economic, technological situations of the time and need of innovation and change that benefit the society at large.

This understanding in the modern world is acquired through the system of education. The imaginative and creative thinking enables a person to cause innovations that result in change for the betterment of mankind. The system of education in general and higher education in particular therefore, should be oriented to encourage the learner to understand a phenomenon, critically evaluate its impact and come out with solutions which help solve the problem of societal development.

Body of knowledge created and imparted helps the learner immensely to understand the phenomena. The way knowledge is imparted enables learner to critically and creatively think about a phenomena. When these critical and creative ideas are applied to real life situations they result in innovations and change. How far our system of higher education is responsive and how to make it responsive to challenges of innovations and change are therefore critical issues. Both these questions are immensely important nationally & globally.

Indian College Forum initiative

The Indian Colleges Forum has always considered current issues of importance in higher education in its various national level conferences held in different parts of the country with participation of eminent education thinkers, planners and leaders of institutions of higher education. Indian College Forum (ICF) for its 18th Annual National Conference has chosen its theme: ***"HIGHER EDUCATION FOR INNOVATIONS AND CHANGE" with*** the following sub-theme:

Sub Themes of:

(a) Policy, practice and resource constraints hindering innovations and change

(b) Academic initiatives namely, contents, methods of delivery and system of evaluation that make higher education responsive to innovations and change;

(c) Best practices of innovations and change in higher education; and

(d) Leadership role in enabling innovations and change in higher education.

Organization of Conference

Society for Education and Economic Development (Seed), Indian Colleges Forum ICF), New Delhi in collaboration with Form of Recognized Colleges of Jammu and Kashmir, Jammu with the support of Kawa College of Education, Kawa Jammu held the 18th conference of ICF and Higher EducationSummit-2012 at Jammu University from 16th – 18th March, 2012.

Organizers

Shri Harbans Singh, President FORCE and Former Minister in J&K Government, Er R.S. Katoch with support of member colleges of Forum of Colleges of J&K organized the event very successfully and memorably. Cultural programme given by the colleges depicted high level cultural moorings of the state of Jammu and Kashmir

Resource Persons

Following resource persons made presentation and interacted with delegates: Shri S.C. Behar, Former Principal Secretary, (Higher Education), Madhya Pradesh and Vice Chancellor, Makhanlal Chaturvedi Rastriya Patrakarita Vishwavidyalaya (MCRP), Prof. M.M. Pant, Former Pro-Vice-Chancellor IGNOU, Professor N.S. Gupta, Former Dean Management, Jammu University. Dr. G.D. Sharma former Secretary UGC and Professor NUEPA made presentation and interacted with participants.

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Participants

The three day conference was attended by 150 plus college Principals drawn from across the country. The invited dignitaries also shared their experiences and expertise with the delegates participating in this conference. The entire stake holder in higher education namely, teachers, students, management representatives were invited to participate in the conference/higher education summit.

Inaugural Session

Inauguration of the Conference by His Excellency the Governor of J&K

His Excellency the Governor of J&K and Chancellor of Universities in Jammu and Kashmir Shri NN Vohra inaugurated the conference in the presence of: Hon. Minister of Higher Education Janab A.G. Malik and Hon. Minister for Technical Education Shri R.S. Chib, Vice Chancellor of Jammu University and President and Secretary SEED and FORCE and Principals of Colleges from other states and Teachers and Students of Colleges and University of Jammu and Kashmir.

His Excellency welcomed the holding of conference in J&K on a very important theme of Innovation and Change in higher education. He hoped that recommendations and suggestions arrived at after the deliberations in the conference would be helpful for the development of higher education in the J&K as well as all over the country. He laid stress on improving the quality of higher education for gaining competitive edge in knowledge economy. With regard to expansion he said private initiative has helped the expansion of higher education in the country. He, however, stressed on the need to ensure quality while expanding higher education. He also emphasized on creative partnership between public and private entities through Public and Private Partnership model for expansion and quality assurance in education. He also released a Hand book on Quality Assessment and Accreditation of Arts, Science, Education, Management and Engineering Colleges along with souvenir for the conference..

Jb. A.G. Malik, Hon'ble Minister of Higher Education

Janab Malik Hon. Minister of Higher Education, J&K appreciated the joining of hands by ICF and Forum of Colleges J&K to discuss very important issue of innovations and change in higher education. He said J&K has been working for improving quality of higher education. As a step towards this direction, he said that we have proposed our help to all the leading colleges established in the state about 50 years ago to be followed to other colleges in the state.

Er. R.S. Chib, Hon'ble Minister for Technical Education

Shri R. S. Chib, Hon. Minister for Technical Education, congratulated ICF and FORCE for organizing ICF annual Conference and Higher Education Summit 2012 jointly. This, he said is a very unique feature as the National Level organization and State level organization have come together to discuss the issue of improvement in quality and

innovations and change. He hoped that deliberation in the conference will bring out areas of intervention by the state government, central government and institutions of higher education for improving quality and setting up centers of innovations and change. He said this will bring about high quality human resources contributing to growth and development of state and Indian economy.

Valedictory Address

Hon. Minister of Finance Janab Abdul Rahim Rather gave valedictory address. He was very much impressed by deliberations and recommendations made by the delegates, resource persons. He said recommendations made by the groups will be very useful in developing policy and programmes of action for development of higher education in J&K and other states. He also congratulated President Force and organizers for joining hands with national level organization ICF to deliberate on a very important theme of innovations and change in Higher Education.

Janab A.G. Malik,, Er. R.S. Chib and Dr. Isher, Vice-Chancellor, who also attended valedictory function he said that the outcome of the conference would be considered by the J&K Government and University of Jammu.

The Outcome of Conference

The outcome of the conference on Higher Education and Change is presented in the following chapters tiled as: II-Recommendations of Groups, III-Report of Technical Sessions and IV – Technical Papers

Chapter II

Recommendations of Groups

Policy, Practices and Resource Constraints[1]

The group discussed thoroughly the **Policy, Practices, Resource Constraints** hindering innovations and change and arrived at a consensus on the following points:

1. State and Central Govt. adopted many good policies from time to time to bring about changes in the Higher Education through innovations based on recommendation of various committees and commissions formed from time-to-time. At the policy level there is no hindrance to innovations and change. Yet to achieve ultimate goal of higher education i.e. social transformation – more access/equality and quality of education we are still for behind. State and central government need to adopt such practices which are relevant to societal need was one of the recommendations of the group.

2. Policy may be good but if practices are not, then desired goal cannot be achieved. Therefore we need to adopt such practices which will enable us to implement our policies rightfully in right time. Therefore we recommend check and balance system i.e. monitoring mechanism in implementing the policies which will bring innovation and change in higher education. ***In this context we recommend gradual abolition of affiliating system in the University system and develop alternative mechanism like giving more autonomy to the colleges so that a participating system could be developed which in turn bring innovation and change***.

3. Resource constraint is one of the major sources of lack of effective change in the system. Hence more resources should be made available to accomplish the required change, but while resources are made available a monitoring mechanism must also be put in place so that the resources are utilized properly.

4. The group also suggested the view that innovation requires a challenge and challenge is only possible if a teacher is given a free hand to inculcate

[1] Group-I, Chairman: Dr. S.C. Sharma, Co-Chair, Dr. V.B. Kodag, Members: Dr. Buddin Gogoi, and Dr. Rosmi P. Mehta participated this group.

the habit of posing correct questions and searching the answer with his/her subjects instead of static traditional teachings.

In fact we recommend changes in teaching and learning system which will bring innovation among teachers & students as well. We also recommend that holistic policy of Education, which will have co-ordination of all sections of education from primary to Post Graduate education. This holistic approach will bring about the required change in higher education.

Role of Private Sector in Higher Education [2]

Each member effectively participated in the deliberations and openly expressed his/her views as to the role of the private sector in higher education in recent years. Majority were in favour, however some were against too.

The general sentiment was that only private sector can change the present scenario of Higher Education by uplifting its quality and standard and by enhancing its effectiveness under certain monitoring agencies. The uplifting of the quality and standard of higher education should be the basic goal of the private sector instead of profit maximization. Of course, one participant was entirely against giving such encouragement to private sector to step into higher education since it is motivated by profiteering approach and not by service or social approach.

Most of the participants agreed that the recent growth of medical, engineering, technical and management education could only be possible through private sector and not by the public sector alone. Participating members also expressed the view that in colleges where government sponsored courses and private self-financing courses are run side by side, the efficiency of the later far surpasses the former.

The fact that cannot be ignored is that the demand for effective higher education is very high but the resources of the government are very limited and in such a scenario the support form the private sector is essential. However all the members were of the opinion that suitable checks & controls on such private institutes has to be ensured so as to fulfill the mission of providing best quality higher education for all at an affordable rates and in an effective manner.

[2] Group-2, Chairman: Dr. Rajiv Gupta, Members: Dr. Mohd Basheer, Dr. Sandeep Kumar Paul, Dr. P.K Saxena, Dr. Paramjet Kour Tiwana, Dr. Dilip Arora and Dr. L.N.Khatri participated this group.

Leadership Role in Enabling Innovation and Change in Higher Education[3]

Highlighting the importance of leadership for innovation and changes in higher Education Prof MM Pant initiated the discussion with an understanding that the role of leadership in education is completely different from the leadership of corporate discipline. It is not merely becoming authoritative in classroom for maintaining discipline; it is something different working for new ideas for a social change. It is shifting from the concept of 'Leader' to 'Leadership'. It is something to bring out the best potential of teachers not only for continuous improvement of institution but for nation building.

Prof Pant suggested the concept of Memes developed by Richard Dawkins. As genes pass from one generation to another manifesting human behavior of forefathers, memes are the ideas spreading from one person to another and then passing on to generations. So leadership is to lead, to create and then to Pass these memes to followers in higher education.

In modern era of advertising and marketing, expressing ideas in simple phrases (Key-Words) has become the fashion of corporate world, told Prof Pant. A CEO of Business school may innovate for creating a profit-making world but leaders in higher education have to search for human values. He pointed towards the trend of creating branded phrases like 'Conversational Capital'. The brain storming phrases originating from the minds of innovative leaders are unique and positive stimulators for social change through education. These can be spread through social media, internet, face-book, you tube or twitter etc. The point is that less the 'Message; of innovations should spread for social changes and this he stressed very forcefully.

By this time the team members were all the more participative in harmony with each other. Prof Rawat drew attention of us all towards the fact that ideas are generated through creativity. Creativity comes out of a problem. Problems are always there with the people or say students in an educational institution. He quoted former president of India Dr. Abdul Kalam saying:

1. Innovations come through creativity;

2. Creativity comes from beautiful minds; and

3. Creative mind has the ability to imagine, change, and invent something new by counseling, changing, reapplying ideas and thinking differently.

[3]Group-3, Chairman: Prof.MM Pant, Members: Dr.Nalini Bhatt, Er.M.S Katoch, Prof. P.K Kaul, Dr. N.S Gupta, Dr. KN Pushplata, Dr. MS Rawat, Dr. Abdul Haque, Dr. M Parkash, Prof. Govinda, Dr. HM Shah, Dr. Purnima Bhatnagar and Dr. Paramjit Kaur participated this group.

Therefore leadership is required to identify problems of the people around- the staff, students, parents and management. For that leaders are to remain in constant touch with a regular feed-back mechanism to find ideas to work on.

Prof M Parkash from Banglore shared his experience of making positive use of Mobile phone for taking attendance and monthly tests of students with the help of a programme (ACTS) Attendance and Course Tracking System developed by him and his faculty. Then engrossing discussion took place on the use of ICT techniques by the leadership at all levels. Dr Purnima Bhatnagar and Dr Paramjit Kaur brought attention of the participants towards possibility of limited use of ICT techniques in remote and rural areas of the country. They said many institutions have to ban the use of mobile phones in their area for fear of misuse by the youth. Parental and social back-round regarding awareness of these techniques became hot topic for discussion. Both positive and negative aspects of ICT were discussed. Prof GD Sharma came forward with a solution. He was of the opinion that nothing is good or bad. No technique could be taken for granted everywhere. It is up to the leadership to find out as to what could be useful in particular area keeping in mind the state of development. The leadership should see through flexible lens. At one place where one generation has exhausted its energies using internet, the youngsters might love playing with mud and at another they may love using ICT up to the maximum for exploring a new world for them. Therefore leadership is required to be intelligently responsive to the needs and requirements of their respective subjects. Need based innovation for change might be a challenge for them. Much discussion look place over the choice of students selecting their subjects to read. Friends from Bangalore, Delhi and Kerala talked about students competing globally and from Punjab and Jammu stated acting them only locally. Everyone was of the view that the leadership at all levels should be well aware of the change needed in their respective places. The outcome of our healthy discussion was:

1. ***It is not the concept of 'Leader' but the 'Leadership' that is important.***
2. ***Leadership should be capable of prioritizing the basic questions coming out of the problems they face.***
3. ***Leadership should be capable of bringing behavioral changes in the staff and students. Ordinary students and ordinary faculty must grow. Developing students and developing faculty must be the motto of the leadership.***
4. ***Institutional build up must be strengthened. If there is shortage of faculty, learning and teaching through ICT would help.***
5. ***Leadership is not authoritative control by a single person; it is a collective responsibility of the whole team.***
6. ***Last but not the least point is that leadership must lead in a way that students follow their footsteps as role models.***

Let us all be role models for future generations and join hands together for a bright future was the consequence among the participating members of this group.

Chapter III

Report of Technical Sessions

(i) Policy, Practices and Resource Constraint Hindering Innovation and Change[4]

The session was chaired by S.C Behar, former VC (MCRP) University and co-chaired by Principal Dayanand Shetty. The delegate speakers were Dr. H.M Shah, Dr. G.D. Sharma, Mrs. Girija Sharma and Mrs. Tapasya Bhardwaj.

During the technical session the participants highlighted the quality practices to be followed in our higher education system to initiate innovations and bring transformations in the system. The speakers highlighted that:

- It is the ideas and not the money which will transform the educational system
- Our Country should focus on no cost or low cost Innovative measures
- Strong quality control and quality assurance mechanism is mandatory for bringing quality in the System.

The other measures highlighted were:

- Transparency in the system
- Bench Marking
- Research And Development
- Redistribution of resources
- Globally competent personnel
- Good Governance
- Technological advancement

There is a need to conduct research and use of research publications for the improvement of the system. There should be setting up of change hubs in the institution. Proper utilization of funds are required in the institutions of higher education.

Hurdles highlighted by the speakers were:

- Resource and policy constraints

[4] Report prepared by Mrs. Angela Gadroo and Mrs. Monika Bajaj, MIER College of Education, J & K.

- Less investment on education
- Lack of policy to use infrastructure for multi purpose programmes
- Slow change in the syllabus of university
- System of affiliation of colleges
- System of centralized evaluation

Areas of innovations to discussed by the speakers were to make college as centre stage, more autonomy college, multiple program should be started, national framework should be there 100% tax exemption for investment in education, adequate resources, to engage more youth in the discussions etc.

(ii) Role of Private Sector in Promoting Higher Education[5]

The Third technical session was chaired by Dr. Madhu singh (Principal, Khalsa college of Education). This session was co-chaired by Dr. M.S Rawat. The Key speaker in this session was Prof. M.M Pant, a prominent academician.

This session started with delegate speaker Dr.M.Prakash, Dr.Manju Sarawat, Dr. Shivali Sharma and Mrs. Divya Bakhsi.

The first speaker discussed and highlighted the following aspects and requirement of higher education, necessary strategies, method s etc. Other details of her presentation were:

1. Content, Method of delivery and evaluation process.
2. Principles of effective learning and their application.
3. Academic initiatives and contents

4Es of Learning- Engage, Explore, Explain and Evaluation.

The speaker further presented and analyzed other key areas of the theme of the seminar such as communication, digital literacy, learning skills, Interpersonal and intellectual educational relations combined with other aspects of assessment procedures ; value added assessment and profile management etc. This speaker also explained necessary reforms in teaching learning strategies such as generalized massive online information service, learning, personalized learning strategic planning funding career opportunities, frequent updation of curriculum and integrated multimedia technology.

In this age of knowledge and information and communication technology, the speaker stressed the need to maintain high standards of excellence, Merit, competence and

[5] Report prepared by group of faculty members of Kawa College

continuous enrichment of skills. The second speaker Mrs. Divya Bakshi from Kawa College of education spoke on "Academic Initiatives namely content Methods of Delivering and system of Evaluation".

According to her the field of higher education innovation can be brought by collaborating of different agencies together, For this some external agencies should come forward to make people aware especially those who are engaged in the field of higher education she opinioned that innovation is not possible until we do not inculcate the habit of thinking and reasoning which is unique and creative.

Internal co-operation scheme should be based on long term partnership between different institutions. Priority should be given to training programs in the developing countries with short periods of specialized and intensive study. Partnership based on common interest, mutual respect and creditability should be prime matrix for renewable in higher education activities. Again existing policies need to be re-examined. There should be monitoring agencies to oversee these innovations. They need to set good practices, While practices which harm the educational processes are sought to be discouraged.

She laid on engaging networks, technology transfer, developing teaching materials and sharing experience of their application in teaching, training and research and making knowledge accessible to all. According to her, society must support education at all levels.

The third speaker Prof. M.M. Pant was the keys speaker of the session. His main theme was the use of exclusive model of education in this stage of ICT in higher education. For him education is life time paradigmatic process where new dynamics keep appearing as innovations. This not only happens but is also the need in view of globalizing ICT and Continuous Changing needs of learners.

Today's education requires constant up gradation and updating in an integrated way of not only skill, techniques, information, knowledge, learning process but also of the expanding fabric of exclusion on the basis of merit and inclusion in view of increasing educational needs of all the sections of society.

For Prof. Pant Bill Gate, among others has been a very common middle class family person, but through his determination and use of modern ICT he had become not only the richest person in the world but also a person who has proved to be a catalyst in expanding horizon of knowledge and communication. Today therefore, it is this type of transformation needed in the world of higher education in India as well.

Dr. M.S. Rawat, Co-chair observed that universities as well as UGC must higher education. Research gives highest priority to research in higher education. He also stressed the need for transformation of thinking towards adapting best possible methods of information and communication technology to bring about innovations and change in the system of higher education.

Dr. Madhu Singh, Chair person of the session ended the session with her concluding remarks that this session of the seminar has brought out a several important aspects concerning relationship between higher education, innovations and necessary changes in this age of information technology (IT). She said that Prof. Pant's presentation has been the real trend setter. She fully supported all the use of ICT in distance education. She concluded her remarks by saying that ICT must not remain a luxury of elite in education but it must be commonly used because it is the need of the hour.

(iii) Leadership Role in Enabling Innovation and Change in Higher Education[6]

The Session was chaired by Mr. Kuldeep Wahi and Co- chaired by Dr. Buddin Gogoi. The keyspeakers of the session were Prof. M.M Pant and Dr. N.S Gupta.

During the technical session, the key speakers highlighted the leadership quality in enabling innovation and change in higher education.

The first key speaker expressed his ideas by saying that for brining about change, the function of education will have to be kept in mind. He also talked of decentralization of power for effectively implementation of any idea lleadership to change. In addition to it, he said that two types of change are required i.e. Self propelling change and manipulative change. We should have access to information on knowledge created he further highlights designing of organizational structure to implement change.

The second key speaker Dr. N.S. Gupta said that practicing of social ethos and the need for ethical norms is also essential for developing leadership quality. During the course of in presentation he argued that MNC have also played a great role in this area. They have encouraged the process of cross cultural forces to influence diverse cultures.

Lastly, Dr, Buddin Gogoi spoke on the occasion. He stressed the need of globalization which encouraged the concept of interchange. He concluded the session by saying that the policy of humane approach towards employees helps in implementing change.

[6] Report prepared by Mrs. Richa Dubey, and Miss. Pooja Ghai, Lecturer Kawa College of Education, J&K.

(iv) Best Practices of Innovation and Change in Higher Education[7]

This session was haired by Dr. N.S Gupta retired Professor Jammu University Co-chaired by Dr. sirai-udi-in Bhat. The theme of the session was Best Practices of Innovation and change in Higher Education in which 8 speakers presented their papers.

Dr. Madhu Singh elaborated on the need to develop instructional practices and the multiple roles of the universities. She suggested three steps to bring about change: namely:- Identification of areas, possible solution and implementation of innovation. She recommended few steps to improve the organization, culture like painting or inspiration vision. Building an open reception, questioning culture empowering people at all level, setting goals, time frame and measurement for innovations etc.

Dr. M. Parkash presented case studies that highlighted the benefits of ICT in Higher Education System. He said case study involved attendance and course tracking system and student monitoring system through mobile technology usage, which was highly appreciated.

Prof. Raj Kumar Bakshi elaborated on the vital issues influencing the quality of higher education namely curriculum development, improvement of teaching learning process, student support services, action research involvement of parents and alumni etc. She also stressed upon the concerns in higher education such as – high enrollment, regional imbalances and political interference etc.

Dr. Anita Bali discussed the educational structures which are hierarchical in nature. She emphasized the need for changing educational structures while stressing upon the educational paradigms. She emphasized that present practices are inadequate and are leading to the failure of educational reforms. What is needed is shift from instruction to learning. The levels of change have to be systemic and whole sum.

Dr. Meera Sharma highlighted the emerging need and expectation which can be fulfilled with the help of innovative practices like ICT. She recommended the bridging of the quality gaps in higher education which require urgent intervention in area like Public, Private Partnership, preservation and propagation of Indian traditional knowledge system and resource generation etc.

Prof. P.K Koul presented his views on the need for innovative curricula to make higher education more Employable. He stressed upon to frame a curriculum which contributed

[7] Report prepared by Mrs. Komal Sharma and Mrs. Monika Marwaha, MIER College of Education J & K.

the aspirations and needs of students at the local, national and global level. He recommended the introduction of value education, creation of self-learning available knowledge, acquirements of communication skills and community involvement as important components of curriculum. Dr. Dilip Arora presented case study of from Mumbai and Rajasthan Where best practices likeCounseling Department of Think- Tank personality and soft skill training programme, Spiritual orientations, value education, computer awareness and social awareness programme where successfully introduced.

Prof. L.N Khatri also presented case study of two colleges from in Kerala and Bikaner. The Best Practices introduce in these college were soft Skill training, group study, 'Pranam' to Teacher while entering the college , adaptation of UGC recommended courses and no record of strike or bunking of classes by teacher and student.

The key note speaker Dr. S.C Behar, Former V.C MCRP University, shared his experience in the field of Education. He highlighted the recommendation of Kothari commission, Radhakrishan Commission and especially Gandhiji Basic education. The change required in our education system has to be low cost and holistic. He discussed various elements of change at higher Educational level namely-institutional culture, curriculum, classroom practices, and evaluation and co- curriculum activities. He spoke about said various obstacles in the implementation of change such as attitude, competence, parental expectation and unfair practices.

The session ended with chairperson address in which he threw light upon some major issue like Dilemma in the education system between proliferation and purposefulness, transforming pedagogy and course contents. He congratulated and thanked all the speakers and also appreciated deliberations.

I. The Policy, Practice and Resource Constraints Hindering Innovations and Changes

Chapter IV

Technical Papers

1. Policy, Practice and Resource Constraints Hindering Innovations and Changes[8]

INTRODUCTION

With the explosive growth of knowledge in the past century and with the development of handy tools of information and communication, technologies as well as scientific innovations, competition has become a hall mark of growth all over the world. A paradigm shift has been noticed in Higher education from "National Education to Global Education" and from one time education for few to a life time for all, from teacher centric education to learner centric education.

India has the 3rd largest system of Higher education preceded by USA and china. Access, equity, accountability and quality should from the 4 guiding principles while planning for Higher education development in India in the present century.

ROLE OF UNIVERSITIES

- To create new knowledge
- To acquire new capabilities
- To produce an intelligent human resource pool
- To generate and disseminate knowledge
- To provide easy access to higher education to the common Indian
- To make higher education a catalyst to major economic change
- To improve and maintain quality status in college of higher education in India
- To provide education to generate employability
- To attain excellence in different disciplines
- To make higher education vibrant, competitive , meaningful and purposeful

[8] Mrs.Tapasay Bhardwaj, Lecturer, Bhartiya College of Education, Udgampur, J&K

MEASURES TAKEN FOR POLICY CHANGES AND PRACTICES

- **MASSIVE EXPANSION IN INDIAN HIGHER EDUCATION SYSTEM**
  - Establishment of 8 IITs,7 IIMs, 5IISERs,30 Central universities
  - 210 community colleges, 700 polytechnics to be established
  - 330 college in educationally backwards districts
- **Quality assurance**
  - Improve quality in-
  - Admission curriculum and assessment
  - Accreditation and rating
  - Re structuring affiliated college and research for policy formulation

SOCIAL MOBILITY – Higher education is being made available to student from diverse back grounds, it can become an instrument for progress toward egalitarian objectives. The government is trying to increase the number of people exposed to higher education. Widening participation does not just mean people from diverse background in the university but also is a means to create inclusive society.

Allotting diploma and degree courses side by side – The empowers the student to take up work soon after their degree courses.

National human resource development fund raised – There is a fourfold increase in fund in 11th five year plan 2007-2012.Funds have been provided to modernize infrastructure facilities such as library, laboratories, and auditoriums, play grounds, computer labs etc. A good does of fund have allocated for upgrading agricultural management and medical institutions.

New market friendly and job oriented subject combination introduced - This helps to generate employability in a variety of subject areas having strong market orientation in an expanding but highly competitive field.

Distance education strengthened

Public spending in education raised to 6% of GDP

Establishment of fourteen innovation universities in India- These universities will be at the fount of making India a global knowledge hub. It is a positive step as it will create competitive pressure for top private and public universities to integrate and quality in their academic offerings.

NATIONAL KNOWLEDGE COMMISION (NKC)

Recommendation

- One university for 150 college for better administration
- Autonomous board to be set up for undergraduate course
- Achieve the objective of tapping India's enormous knowledge reservoir
- Create knowledge society

UPGRADATION OF UNIVERSITY

Upgrading a few existing selected universities

- Model university in each state
- Upgrading state universities to the level of central universities

RESOURCE CONSTRAINT HINDERING INNOVATIONS AND CHANGE

- Massive expansion in the number of college will mean rolling more faculties and the present number of faculties cannot be forced into this. Preparing faculties would be a mammoth task.
- Many Innovations have been proposed to assure quality in higher education institutions. Transparency in the functioning at all level is required so that those committing wrong are deterred. Strong quality control measure is a must to assure performance above an acceptable bench mark is essential for any institution.
- There was a fourfold increase in fund in the 11th five year plan. It is obvious that it is not the dearth of funding but something more that is stumbling the desired growth and global quality. There has to be a proper distribution of fund among state universities and state college and some system for proper monitoring.
- The fourteen innovative universities that are planned to be set up all over India will face problem in raising the resources and allocating them to efficient use.
- To maintain balance between talent pool aspiring for quality higher education and number of quality institutes is a herculean task as number of student eligible for higher education are increasing at a faster rate than the number of institutions of quality.

CONCLUSION

2012, Will be an exciting year for India as it grows, Improves quality and approaches internationalization. It will also be an year of value contest in balancing quality vs. quantity, private vs public and for profit vs not for profit. Having rules does preclude growth, it manager risk and secures the stake holders. The year 2012 will bring more sensitivity about integrating quality at policy and institutional level sometimes with compulsion. Together we have to cover miles never the level the government's commitment to address the issues of higher education must be recognized and congratulated.

2. Making Universities Responsive to Innovations and Change[9]

I. Introduction

2010-20 has been declared as innovation decade. It is the time when critical role that innovation has to play to mark the future. Institutions of higher education and professionals need to give priorities for innovative approaches by developing a network through which inclusive development is achieved.

Technological changes have a crucial role in economic growth. Experiences of developing countries like Brazil, Russia, India and China (BRIC) show that innovation is a crucial determinant of economic growth and development including competitiveness. The World-Class companies identified the role of innovation as one of the key factors to survive. Innovation is one of the important areas which differentiates knowledge leaders from knowledge followers. It is important to mention that without infrastructural investment in education, training, research & development and other scientific and technical activities, very little can be accomplished by way of assimilation of imported technologies. It is, therefore, necessary that a viable and constant innovation policy requires well planned and organized system of knowledge, learning, training and value creation.

II. Innovation starting with an idea: Something New and Valuable

Since the beginning of the last decade, "When Competitive environment went through a major transformation due to globalization, business organizations have intensified their search for strategies that will give them a sustainable competitive advantage. Such strategies generally require that the firm continuously differentiates its products and services, for which firm must constantly be innovative. This continuous innovation requires a well planned system of knowledge management that enables the firm to excel in technological and administrative knowledge creation.

In the research literature, the definition of innovation includes "the concept of novelty, commercialization and/or implementation. In other words, if an idea has not been developed and transformed into product, process or service, or it has not been commercialized, then it would not be classified as an innovation."[1]

[9] Dr. M.S. RAWAT, Principal, Delhi College of Arts and Commerce, University of Delhi, Delhi.

Former President, Dr. A.P.J. Abdul Kalam has aptly put: "In a knowledge society, we have to make innovations continuously. Innovations come through creativity. Creativity comes from beautiful minds. It can be anywhere and in any part of the world. It may start from a fisherman's halmet or a farmer's household or a diary farm or cattle breeding center or it could emanate from classrooms or labs or industries or R&D centers. Creativity has got multi dimensions like inventions, discoveries and innovations. Creative mind has the ability to imagine or invent something new by combining, changing or reapplying existing ideas. Creative person has an attitude to accept change and newness, a willingness to play with ideas and possibilities, a flexibility of outlook, the habit of enjoying the good, while looking for ways to improve it. Creativity is a process through which, we can continuously improve ideas and find unique solutions by making gradual alterations and refinements to our works. The important aspect of creativity is: seeing the same thing as everybody else, but thinking of something different."[2]

- Introduction of new combination of various factors of production into the production system. Innovation is the competence of organizing and implementing research and development bringing forth the new technology and the new product to meet the demand of customers. It involves the new product, new technology and new market, new material and new combination.[3]

- Implementation of discoveries and inventions and the process by which new outcomes, whether products, systems or processes come into being.[4]

- Innovation is a knowledge process aimed at creating new knowledge geared towards the development of commercial and viable solutions. Innovations is a process wherein knowledge is acquired, shared and assimilated with the aim to create new knowledge, which embodies products and services. Innovation is the adoption of an idea or behaviour that is new to the organization.[5]

- Innovation consists of new ideas that have been transformed or implemented as products or services generating value for the firm. Ideas are formed through a deep interaction among people environments that have conditions to enable knowledge creation.[6]

- Process to achieve measurable value enhancement in any commercial activity through introduction of new goods, services, operational and organizational process. It is a significant factor in facilitating competitiveness, improvement in market share and quality as well as reduction in costs.[7]

- "Something "new": new to us, new to the market, new to the customers. Another keyword is "valuable". It should create value for the company

shareholders. So in our context, innovation may not necessarily be a big invention; it could be small or even incremental improvement that combined together can create value for our customers. Innovation in our case could be incremental, could be virtual and again it could be a product, process or business model. In many cases, we can come up with a very simple idea that could be a big hit in the market. Besides the output, we can give to the customers, internally innovation means a lot to us. It means that we are working in a new atmosphere, have a new type of interaction among people and also have new thinking processes in the organization.

- Innovation: Novel + Valuable
  - Both incremental improvement and breakthroughs
  - Not just new invention of products; it could be a new work process or new business model.
  - Includes a new atmosphere, people interaction, a thinking process that enables our creativity and allows us to try doing things differently.
  - Creates value for our customers, partners, shareholders, and employees".[8]
  - Various models of innovations have been advocated the definition may be simple, yet a broad and complex. Aluah. A provided generic classification of innovation, as under:-

Technological	Market	Administrative
Product	Product	Strategy
Process	Price	Structure
Service	Place	System
	Promotion	People

TABLE-1: Generic Classification of innovation (adapted from Aluah, "Innovation management: Strategic, Implementation and Profits: New York: Oxford University Press (1998)

III. India in the Global Innovation Initiates scenario:

Looking at Global innovation initiatives, India ranks at 56th place, with Global innovation indexs core of 3.10 in comparison to other countries.[9]

Country/Economy	G.I.I. Score	Rank
Iceland	4.86	1
Sweden	4.85	2
Hongkong China	4.83	3
Singapore	4.65	7
U.S.A.	4.57	11
U.K.	4.42	14
Germany	4.32	16
China	3.32	43
India	3.10	56

TABLE-2: Global Innovation Index (Overall) Ranking (Source G.I.I.)

It has noted that "India has no choice but to innovate India is at the cusp of new times, where innovation has become a necessity. If various parameters are given a closer look, the report provides encouraging insights:

i) Eco-innovation India ranks - 25th

ii) Investor and Creator - 22nd

iii) Human Capacity - 38th " 10

The National Knowledge Commission identified the role of innovation as one of the key factors in India's economic growth. Innovation is a process to achieve measurable value enhancement in any commercial activity, through introduction of new or improved goods, services operational organizational processes. It is a significant factor in facilitating competitiveness, improvement in market share and quality as well as reduction in costs.

The NKC Survey reveals that Innovation Intensify (i.e. the percentage of revenue derived from products/services which are less than 3 years old) has increased for large firms as well as small medium enterprises. The strategic prioritization of innovation as a factor critical to growth and competitiveness has also achieved significant prominence since the start of economic liberalization in India.

However, it is pertinent to point out that the most critical external barrier for both large firms and small and medium enterprises is skill shortage arising out of lack of emphasis on industrial innovation, problem solving, designing experimentation, etc. In the education curricula, there is also need for more effective collaboration between industry, universities and R&D institutions. Systematic reform of the higher education system (including skill based marketable vocational education) in India is essential to develop the required intellectual capital as well as generate effective synergies among industry, government, the educational system, the R&D environment and the consumer. Innovation is a complex activity that requires widespread interaction across the

entire economy, from the grassroots to the large firm level. We recommend a comprehensive campaign to address these issues and to spur efforts to make India a global leader in innovation.[11] Government of India's Department of Science and Technology has planned to invest largely on innovation for "Knowledge Leadership and the National. Innovation Project is sourcing six billion dollars from World Bank-up innovation and inventors with risk capital."[12]

Innovation network consists of public and private institutions that interact and the actors in the innovations system be universities, government agencies public and private firms. "It is not just the percentage fall in funds allocated to research and development that is galling, but there have been cutbacks in library services too. Even information technology companies in India hardly invest in knowledge production which is frontier stuff. While elsewhere these enterprises would set aside 14% to 15% of their sales for R&D in India it is just about 3%. Nationality S.P. Gupta found that our R&D expenditure is 1/60th of South Korea, 1/250th of the US, and 1/340th of Japan. Little wonder then that our manpower base of scientists and engineers is 1/100th of the US, 1/50th of South Korea and 1/5th of even China."[12-A]

IV. Universities are the Power house of knowledge – The basis of Innovation:

The incorporation in the innovation process must be supported on different levels by using modern information and communication tools. As far as product and services are concerned it may well take several years from knowledge development to a response from the target market. Organizing this process is one of the tasks of professional innovation management. Effective innovation management steers the process from knowledge development to realization and commercial exploitation of the results.

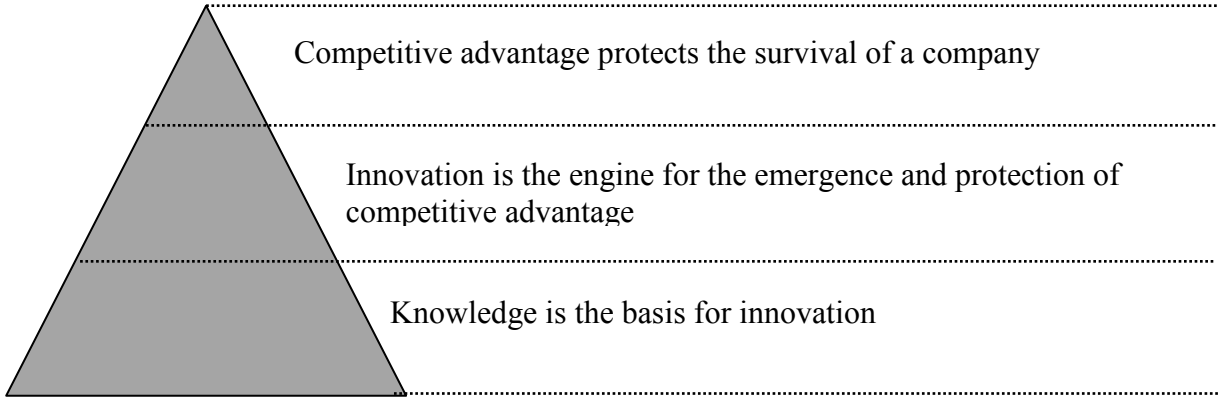

Fig: 1. Knowledge as the basis for achieving competitive advantage (Lebert al.2001)

"Universities are places where ideas generate, where applications grow out of ideas and where innovation flourishes in an atmosphere of intellectual challenge and freedom. Universities where the faculty and students constantly challenge

existing boundaries of knowledge admits a prevailing culture of creativity, are ideality positioned to be the powerhouse of knowledge economy. Despite having one of the largest higher education systems in the world, only a few institutions of learning have been able to make a mark on global stage. The contribution of the alumni of the Indian Institutes of Technology (IITs), the Indian Institute of Science (IISc.) and the India Institutes of Management (IIMs) have been widely recognized all over the world. India is a positioned to adopt a leadership role in the global knowledge economy of the future. In the past, cheap labour and low technology manufacturing skills powered several developing countries to prosperity. But the coming age would patently belong to those countries who are able to reap the benefits of knowledge organizations that exist within. Recognizing this, the XI Plan proposes the establishment of 14 Innovation Universities aimed at World class standards.. …… Consequently, the synergies between teaching and research have to be exploited to create quality institutions."[22]

"In the area of intellectual capital it was found that Asian MAKE winners are becoming more aware of the issue. However, it tends to be focusing on patent protection and intellectual asset management, whereas in Europe and North America they have a much broader view in terms of brands and processes."[14]

One of the critical areas where industry – academic relationships have to be strengthened is the area of innovation entrepreneurship. "Our country needs entrepreneurs and visionaries who can propose sustainable and innovative solutions. And for this to happen, our education system has to be geared in a manner so that the students can identify real world opportunities and understand the nuances of real time needs. This is clearly one area where industry can guide academia. Academicians and industry leaders are in broad consensus that while India explores innovation, it is important to understand that innovation cannot be predetermined. Attempts should be made to encourage freshness in ideas and concept that have scalability and can contribute significantly in generating quality, innovation, expansion, excellence and inclusion within the education system. Hence, it is necessary to remove regulatory road blocks and psychological reservations that are impediments toward fostering a climate of innovation". [15]

Entrepreneurship and innovation are the crucial factors for long term sustainability of e-commerce and e-business and there exists synergies between the two. It is important to note that:

- Entrepreneurship and innovations are positively related to each other and interact to assist and organization to florish,
- Entrepreneurship and innovations are complementary and combination of the two is necessary for the success of organization in the changing world environment, and

- Entrepreneurship and innovations are dynamic and holistic processes to enable organization to survive and enjoy competitive edge, and
- There is relationship between innovation index and competitiveness.

"Growth competitiveness is determined by the innovative ability of an organization. This innovation arises from institutional innovation initiative and the R&D productivity of a firm, shaped by policies and the nature of local institutions apart from grassroot level individual innovation. National innovative capacity has to be the country's important potential for producing competitive products. Institutions can definitely contribute towards the enhancement in overall competitiveness index of the country. This requires combined effort of researchers, technologists, production specialists and business leaders for building competitiveness what you need is talent with innovation and creativity."[16]

League of European Research Universities (LERU) has entered into more than 832 industry-universities collaborations. Even during financial crises, the aim of LERU is to increase both number of contracts and partners. M. Carme Vendguer expressed "However, in an economic crisis, one solution of struggling companies is the increase innovation through collaborations with universities. This applies, above all, to small and medium enterprises, and we have developed specific programmes to help SMED increase growth and competitiveness through innovation. We have set up business innovation programme through which University of Barcelona (UB) graduates are given specialized training in innovation management and then offered placements in SMES where they are responsible for innovation projects."[16-A]

Partnership and collaborations are being encouraged to enhance innovation capabilities. Microsoft International and College of Computing and Information Sciences of Makerere University Africa has agreed to set up innovations Centres. The innovations Centres will be used by Makerere and Uganda as a whole to develop appropriate innovations relevant to the needs of society. Microsoft International and United Nationsl Industrial Development Organization (UNIDO) have agreed to set up innovation model centres for African Continent. Tata Consultancy Services have offered technical training opportunities to graduates of University of Makerere, Africa.

Zhejian University (China) and Lund University has signed an agreement to set up a joint centre of innovation and entrepreneurship….."the two universities will carry out joint research, joint training, student exchange etc. to strengthen the cooperation in innovation system, innovation management and sustainability and so on."[16-B]

V. INNOVATION FUNDING:

Share of the total global expenditure on research and development is low as compared to the international standards, as shown below:

S.No.	Country	Percentage of Expenditure
1.	U.S.A.	31.1%
2.	Europe	23.9%
3.	China	17.9%
4.	Japan	12.4%
5.	India	3.7%
6.	Rest of the World	11.9%

TABLE-4: Share of Total Global R&D Expenditure (2008)
(Source – Bottelle and R&D Magazine: Global R&D Report (2008)

India's share of the total global R&D spending in just 3.7%, a percentage which has remained constant from 2005 till 2008. In contrast China's share increased from 13.5% to almost 18%.

Adequate funding is essential to support unity innovation projects and teaching. Concept note has provided that – A Research Endowment Fund of an adequate amount not less than 10 crores per university shall be provided annually. The University shall also have the freedom to source funding from all other non-governmental sources. Grants from this fund shall be made available to individual research proposals emanating from University. The research proposal shall be evaluated by an Academic Research Paper Group.

As per concept Note-three district approaches have been advocated in establishing Innovation Universities:

i) New green field innovation universities focused on distinct issues of national importance to India and building various disciplines and fields of research around such issues;
ii) Identifying a few of the existing universities and other institutions of repute and with marginal top-up investment encouraging them to attain world class standards through innovation in chosen areas of knowledge, and
iii) Identifying few educational hubs (cities) in the country where a few institutions and Universities of excellence by national standards are allocated, and creating the architecture of an innovation university by building synergies for inter-disciplinary and strong research and teaching among such institutions.

Innovation and creation of new knowledge are fast becoming the new measures of international economic growth competitiveness, with Universities at the core. Prof. Leif Edvinnson, of University of Lund, Sweden, believes that investing in intellectual capital can ensure not just economic growth but quality growth that can be sustained. "A Country may be wealthy today, but what about tomorrow? Knowledge and human capital must be sustainable. Intellectual capital is much more about quality of education and human experience than the number of people in higher education. Edvinnson said, in his view Universities is important not as mass education, but as training for the human brain – Universities are back office rather than the front office of innovation and development. So simply building more universities and getting more students into higher education will not create intellectual capital unless the economy can provide graduates with relevant jobs, or environment to set up innovative jobs, or environment to set up innovative companies. The role of the universities is "amplified" in a country's intellectual capital by additional features, which encourage production and innovation. These include a country's infrastructure, particularly communication and computing infrastructure, networks which include trade also university and research networks, and ability to renew or innovate with research and development underpinned by the financial and economic conditions to do so."[17]

It is remarked that both China and India are relatively weak in education and training despite recent hype about their higher education sector. However, China is increasing on this fast measure. India has no world class research universities. "The global higher education rankings include just a few Indian institutions, mainly Indian Institutes of Technology, which are not universities, but rather small higher quality technology institutions. While a small number of India's 431 universities excent research focused departments and institutes, it is fair to say that few if any claim overall excellence as research universities. The research productivity, while impressive, is limited by size and the mission of the institutions."[18]

Whereas, "China's research universities identify with the top world research universities and especially seek to emulate the top American research universities. In this respect, the Academic Ranking of World University – the Shanghai Jiao Tong ranking emerged from a benchmarking effort of a prominent Chinese university. The 985 project emphasizes graduate programmes, interdisciplinary centers and teaching courses and in some cases entire degree programmes in English, publication in recognized international academic journals, and hiring faculty with international qualifications."[19]

Establishment of an innovation Culture is very much needed. There is a kind of cultural dimension that plays an important role for innovation to take place. Universities and institutes of H.E. have to make best use of national and international information networks, encourage creativity in all forms of research, promote collaborations between universities and industries and disseminate the

outcome to the wider communities. Higher education sector has to play a significant role for creating innovative culture. Universities and institutions of HE have a unique responsibility in teaching and training the students, to build human capital for creating of such environment, the government taking appropriate initiatives is of prime important. "Government is looking of larger propositions to develop India as the knowledge capital of the world and has initiated Public Private Partnership to have sustainable growth is the competitive global knowledge economy. Intellectual Property Rights (IPR) laws are effective in the country and innovators should be aware of their rights."[20] Human capital bank creation is the need of the hour to strengthen the innovation environment and take every possible step to stop brain drain. Taking example of U.S. "as their innovation environment constantly recharge their batteries. American Institutions of excellence stay in top research form. They are never short of talent and when they spot it elsewhere, they are quick to bring it in. This is why scientists from Japan, Maxico and Europe have over the years, moved to America and won Nobel Prizes there. As India lacks such breeding grounds, it is unfair to pick up on the IIT's alone. In India Universities today, a professor is barely rewarded for quality research. Many faculty members from supposedly the best universities in this country often pass off popular pieces as academic articles, a practice that would be unthinkable elsewhere……What matters more in India for a 'merit' promotion is actually not merit at all. Research publications in referred journals are much less important than years of service. This is why as many Indian campuses, there are more professors than lectures – more chiefs than braves. In the smaller provincial universities, teachers of all ranks are unhappy. They complain bitterly of overloaded lecture schedules and lack of research and library facilities. Consequently, IITs get no help from outside and are forced to plod on their own. Is it surprising than that their research output should wilt?[20A] Mr. Sunil Bharti Mittal emphasized "India should capitalize on the innovations and create an environment to manage the knowledge. India has to provide skill set to the large section of school dropouts to support the economy and make human resource a national capital."[21]

The National Innovation Council (NIC) on Tuesday decided to set up innovation centres in the universities that fall under the 40 industry clusters which it has identified across the country.

"A decision was taken by the NIC here to identify universities in the 40 identified clusters where innovation centres would be created to connect relevant stakeholders and promote innovations," The industrial clusters include Panipat, Surat, Ludhiana, Faridabad, Jalandhar, Pithanpur, Moradabad, Gurgaon, Coimbatore, Tirupur, Kochi, Ahmedabad, Bangalore, Kolkata and Hyderabad.

The NIC headed by Sam Pitroda, has also asked all state governments to set up innovation councils to drive innovation. Besides, the council has written to the

governments to set up autonomous sectoral innovation councils, aligned to the ministries, to help develop competitive advantage in multiple sectors.

These councils would aim at coopting domain experts and other stakeholders to prepare a roadmap for innovations for the next decade for identified sectors. The council is in the process of setting up $1 billion innovation fund to create knowledge base in the country."[21A]

India needs to create open ended exploration and experiments opportunities for students to focus on creativity and innovations. Universities need to give stress upon humanities and liberal art education as much as given to science, engineering and medicine because innovations emerge from cross disciplinary approach.

"The National Innovation Council (NInC) and the Council of Scientific and Industrial Research (CSIR) announced a partnership to jointly promote Cluster Innovation Centres in the country.

This will be part of NInC's Industry and University Innovation Clusters initiative and the CSIR-800 initiative of CSIR and Technopreneur Promotion Program (TePP) of the Department of Scientific and Industrial Research (DSIR).

To take this agenda forward, NInC has been set up to prepare a Roadmap for Innovations 2010-2020 with a focus on inclusive growth. The roadmap will outline interventions, policies, recommendations and methodologies to implement and foster innovation in the country especially in the 26 million micro, small and medium enterprises (MSMEs). CSIR, as a member of NInC, is a partner in realizing this innovation agenda.

The NInC strategy focuses on five key parameters: Platform; inclusion; Eco-system; Drivers and Discourse. The aim is to re-define innovations and to offer novel solutions that lead to inclusive growth and create innovation eco-systems connecting industry, universities, research institutes, professional associations, financial institutions and Government.

One of the key initiatives of NInC is to facilitate, promote, stimulate and strengthen innovation eco-systems across the country by creation of local industry and University Innovation Clusters. A cluster is a geographic grouping of institutions/firms in one industry which galvanizes and strengthens the competitive advantage of that industry.

The innovations activities in the clusters identified by NInC would be galvanized around Cluster Innovation Centres (CICs). CSIR with its 37 laboratories, 3 units, 39 extension centres and its over 4500 scientists will provide human capital and know-how input to CICs. CSIR's involvement will also involve sharing their

knowledge base and programs to boost the CICs, while CSIR will get new opportunities for enhanced MSME interaction to develop new research and innovations and fulfil the CSIR-800 mission.

The CICs would be based on a public private partnership (PPP) model and would act as hubs for connecting various local and national stakeholders. These CICs would then facilitate and drive innovation by connecting cluster needs to ideas, knowledge, technologies, labs and people. Some of the CICs may be located in the CSIR-innovation complexes.

The eventual aim of the NInC and CSIR partnership would be to identify local clusters across industries to drive innovation through the CIC model. However, in the first phase, pilot clusters would be identified to create model CICs and to refine how specific interventions stimulate innovation for enhancing growth and competitiveness. This would provide a blueprint to be replicated across industry and universities, an official."[21B]

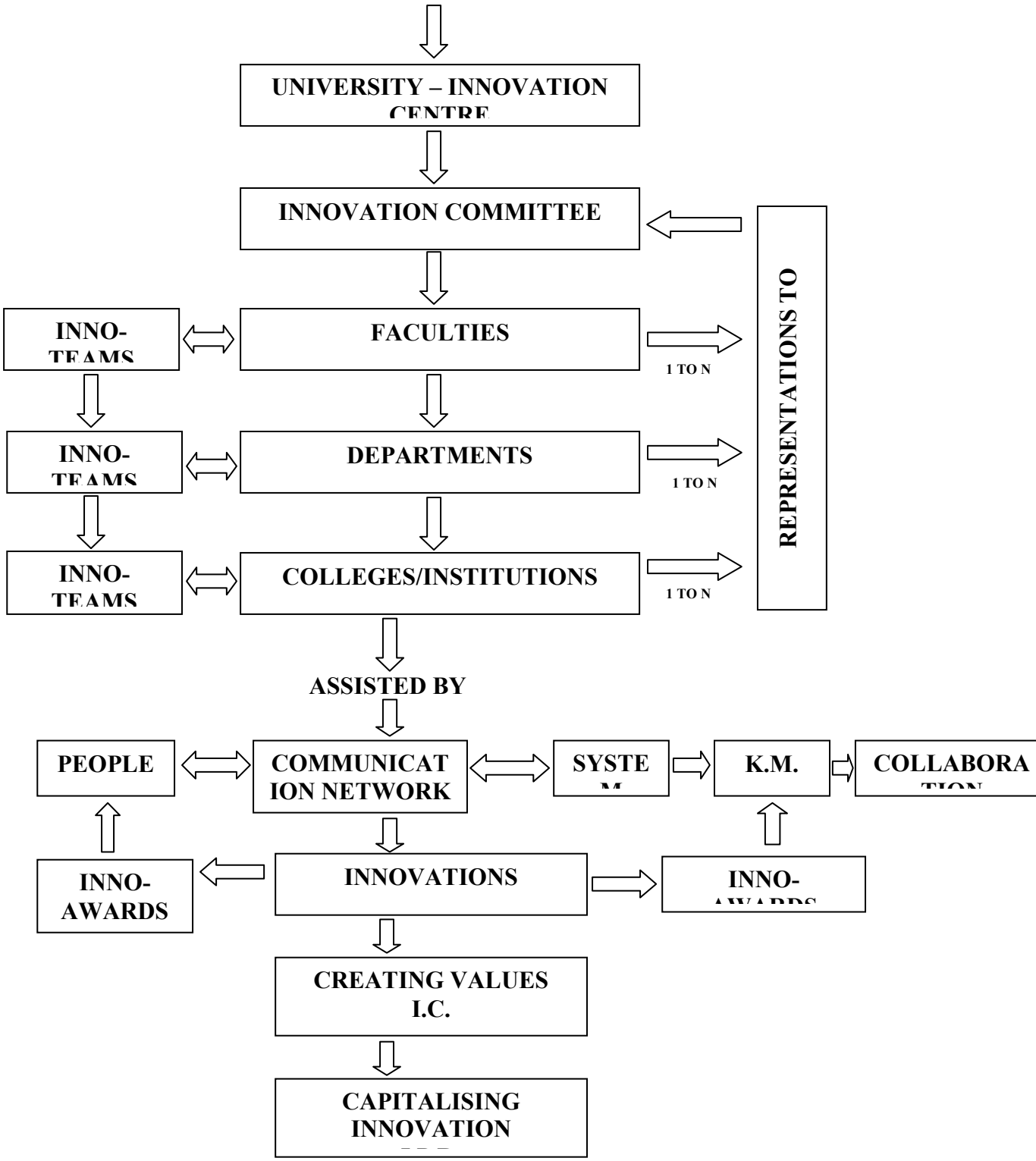

Fig: Innovation Model for Universities

VI. CONCLUDING REMARKS: Keys to Successful Innovation:

A) Clear Organization objectives and directions,

B) Create Innovative Culture:
   a) Team of Inno-Leaders – (Change Leaders)
   b) Inno-People: Qualifications:
      - Open minded
      - Thinking out of box
      - Assertive
      - Risk taking
      - Eager to learn

C) Planning & Laying Structures & Processes:
   - Knowledge Management = K+T
   - R&D Department
   - Technology Road map
   - Intellectual Property Management
   - Inno Awards

D) Creating Human Resource / Capital:
   a) Most important element of Innovation is : People,
   b) Integrating People – Systems & Processes,
   c) Setting up innovation networks,
   d) Conversion of workplace as Learning Place,
   e) Learning programmes with cross interdisciplinary approach,
   f) Creating Think – Tanks,
   g) Creating = Something new with value.

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3. POLICY PRACTICE AND RESOURCE CONTSRAINTS HINDERING INNOVATION AND CHANGES[10]

Higher education is education provided by University, Vocational University, Community Colleges, Liberal arts colleges and technical colleges etc. and other collegiate institutions that award academic degrees, such as career colleges. Higher education includes teaching research and social services activities of universities and with the realm of teaching; it includes both the undergraduate and graduate level. Higher education is very important to novel economics both as a significant in its own right, and as a source of trained and educated personal for the rest of the economy.

A word which synthesis well the need of new approaches, new solution and new educational targets is "Innovation". It is necessary to innovate in every field: technology social sciences, Politics, organizations etc to innovate. we have to train more and more people to have an active role in research, in research transfer, and in exploitation of result of research.

India and abroad is at the crossroads. Innovation and changes played role in development of higher education have been the fuel for growth and development of many civilizations. The true performance evaluation of a person in higher education system is a complex phenomenon.

Techonological improvement in the process of transfer of information in the process of the transfer of information have made a great demand on strategies of teaching learning processes use of modern gadgets and the resultant communication revolution is the chief demand from the point of view of access to knowledge.

Higher education and the world of work the theme provides in-depth coverage of issues and challenges facing students from the professional field in the new millennium. Lack of proper policies, practice and limited no. of resources hinders innovations and changes. Their availability and requirements and utilization needs to be critically examined and analyzed. This will help teachers modify their teaching ways to better equip their students with skills helping them to adapt to a fast, evolving world deviated to examining the challenges faced education to better equip their students future work.

Universities become, also the institutional places for producing knowledge through innovation University colleges educational institutions, research centers have therefore to play a crucial role to remove the hindrance in innovations due to some resources and practices Even now a day many innovations and changes takes place for development of higher education but the problems are still there have to implement the teaching and learning for the cleverest people in order to exploit completely their Potentiality? In other word how can we fulfill both the need of the mass education and the necessity to prepare

[10] Mrs. Girija Shamra, Lecturer in Education.

good leaders? This can be differentiating the institutions in mass and elite institutions or organizing in the University different support and opportunities for the best students but both solutions can also be applied together. We have to provide young people with competences that must not become absolute too fast. Higher education should be focused in developing primarily the "Care-competence" i.e. the skills necessary to live in a complex very interacting and continuously changing society. Some of these 'care competence' are the capability of learning listening interacting communicating being active proactive solving problems understanding other culture and religions etc.

Curricula and teaching methods need to be changed ands shaped for the new objectives and innovations and changes.

Higher Education, Change and Innovation: The Key Axis

The research function of academia remains a prime source of knowledge and innovation at national, regional and international levels. Yet, over the past decade, most industrialized states have been obliged to address the double challenge of providing wider access to postsecondary education and training and ensuring adequate investment in high-level research. This is proving to be a delicate balancing act, which hinges on visionary policies and a more diversified funding base. Governments pursue reforms to build world-class systems of higher education, which assure quality in both research and teaching, in contrast, the term "World- Class University" tends to denote research-oriented institutions, although this should also recognize those who achieve excellence through innovative approaches to learning.

Major Challenges for Higher Education

Current issues facing the research function and its environment include equity, quality; relevance; have now given priority to developing their knowledge base through higher education, research and innovation, and to commit the necessary resources to this goal. Success stories are becoming more common in all regions, and they are characterized by specific indicators:

- .Innovative policies in higher education and research and in Science, Technology and Innovation (STI);.
- A will to improve and profile the necessary infrastructure, including universities.
- Efforts to train and retain and attract highly-skilled human capital (HC)

Barriers or hindrance of access to higher education even

- Barriers to students access and progression.
- Barriers to staff recruitment and career advancement.
- Barriers to staff and students advancement.
- Barriers to innovation and advancement of changes

Strategies to promote through innovation and changes

- Achieving flexibility of provision.
- Policy coherence.
- Mutual advancement.
- Focus on institution.
- Performance improvement.
- Financing resourcing and managing toward inclusive policy framework future direction etc.

Mission and functions of higher education through innovation and changes.

- Mission to educate to train and to undertake research.
- Ethical role, Autonomy, Responsibility and Anticipatory function
- Shaping a new vision in higher education i,e equity of access.

Guidelines to remove the burdens in practice, paling and resources in higher education.

Commitment to quality by all higher education institutions/provides in essential to this end the active and constructive of academic staff an indispensable higher education institutions and responsible for the quality as well as the social, cultural and linguistic relevance of education and the standard of qualifications provided in their name no matter where as how it is delivered.

- Consult competent quality assurance and accreditation bodies and respect the quality assurance and accreditation system of the receiving country when delivering higher education across borders, including distance education
- Ensure the transparency of the financial status of the institution and/ or education programme offered.
- The faculty should guide the students to accurate and reliable information sources on cross border higher education.
- Establish links to strengthen the collaboration between the bodies of the sending country and receiving country and enhance the mutual understanding of different system of quality assurance and accreditation
- Establish and maintain contacts with all stake holders to share the information.
- Establish develop and implement assessment criteria and procedures for company's programmes and qualifications to facilitation the recognition of qualifications and to accododate learning outcomes and competencies that are culturally appropriate in addition to input and process requirements.
- Improve the accessibility at the national as well as international level of up to date, accurate and comprehensive information on mutual recognition agreement for the professions and encourage the development of new agreements.

Higher education has given ample proof of its liability over the centuries and of its ability to change and to induce change and progress in society considering that a substantial

change and develop of he education the enhancement of its quality and relevance and the solution to the major challenges it faces require the strong involvement not only of govt. and of its education institution.

4. Need for Innovative Curricula to Make Higher Education More Employable[11]

Background

Modern society is in a state of flux & changes are on at a very fast rate. It always in a search of excellence. Always change looks for betterment from the existing things/situations or approaches. Rather change is desired in a progressive rather than retrogressive style. In order to achieve this, individuals at different strata of the society aspire to achieve further & further. And for this, they want to build their career, upgrade their knowledge & skills & improve their competence through learning & experience. Higher achievability is the way to excellence & self development is the key to higher achievement. Higher goal must be set by everybody who should make all attempts to reach the same through self development & innovations.

It has been well recognized that education is an important input for the development of an individual, society & nation. The main contribution of educations to the individuals is the basics- right type of attitudes, values, adequate knowledge & essential skills. Educational institutions can provide these basics only through their curricular. In its comprehensive sense, curriculum refers the activities experiences that we plan & organize for students inside &outside educational institutions for realizing the aims of education. The totality of learning experiences makes the live curriculum. The curriculum being the main instrument of education, it can never be static. As the frontiers of knowledge expand with time, the curriculum should be updated, restructured in such a way that it will enhance the quality & standard of education. Thus innovations in curriculum become inevitable, with the changes that take place in our society. To ensure holistic education to the budding generations the aims, content, style media & processes of education need radical transformation so as produce generation capable of living up to & positively influencing changing socio-economic, cultural & political milieu. Our nation must be a dynamic & vibrant one of young men & women in the 21st century in the light of its needs especially the impact of globalization & generation of employment avenues. Each one of whom has an integrated and powerful personality developed through all-round, balanced, and sound education.

[11] Prof. P.K. Koul, Principal, R K Degree College, Vijaypur, Jammu.

After attaining independence, India immediately and thereafter from time to time, devised a number of education policies and set up of host of education commissions to make the education relevant to the present social and economic order to achieve the above goal All these policies having different focuses based on time to time needs of the society and Govt In the beginning it moved through a different situation that of poverty, illiteracy, education backwardness, non-existence of power plant, const. of India as guiding force, no planning, etc and therefore to impart education to the public for making the nation healthy and prosper and nat. building. With a change in economic scenario world over, the focus has to be diverted to other main issues of a country i.e., development of science and technology, spreading of information technology,. Global collaboration for exchange of tech. knowhow, etc. Therefore, the aims were also changed and it necessitated drawing up the innovative curriculum to make the younger generation, being the future of nation builder, as perfect as capable of facing global

Challenges as well particularly in the present era of development of science and technology. These three education policies of education have been worked out after independence. The First policy was framed in 1968, which worked for quite sometime. Efforts were made to reframe the education policy 1979 which remained on papers only, with a few exceptions. The third policy popularly known as National Policy on Education 1986 which is in operation with some modification. For the purpose of its implementation a Programme of Action (POA) lays down in the parliament. It was reviewed in 1990 by a committee the report was known, as "Towards an enlightened and human society". In the light of the report of this way, the National Policy on Education 1986 has been modified / remobilized and changes brought into its structure 1992. Accordingly Central Advisory Board of Education has since been reconstituted by the government in July 2004. Meeting of the reconstituted CABE was held on 10th and 11th September 2004. Some critical issues had emerged and seven committees were set up to examine and deliberate upon these issues.

In his Convocation address at University of Allahabad in 1947, Pt.Jawahar Lal Nehru While summing up the basic objectives of University which is regarded as a citadel of higher education observed:

> *"A university stands for humanism, for tolerance, for reason, for the adventure of ideas, for the search of truth. It stands for the onward march of the human race towards ever higher objectives. If the Universities discharge their duties adequately, it is well with the nation & the people."*

These valuable & meaningful words highlight the very fundamental truth that University & college have a significant role to play in the national life.

NATIONAL POLICY ON EDUCATION 1986

The purpose of giving a glimpse view of National Policy on Education here is to draw the attention of readers towards the concern of experts for the obsolete contents of present curriculum & needs revision of present curriculum. Following are the salient features of NPE – 1986It reveals the main thrust of educationists in the prevalent situation of the country.

1. Essence and Role of Education:
   - All round development
   - Acculturation role
   - Manpower development
   - A unique investment.
2. National System of Education :
   - Up to given level all students irrespective of caste/creed/location/ or sex have access to education of comparable quality.
   - Common structure:10+2+3.
   - National Curricula (it contains a common core along with other components that are flexible. All education will be carried on strict conformity with secular valve)
   - Institute of National importance(Three will be more responsibility of improving quality of higher education for Institute of National importance& these include UGC,NCERT,AICTE,IMC,IIST)

3 Education for Equality.

4. Reorganize of Education at different Stages (Early childhood care & Primary Education; Secondary education; & Higher education)

HIGHER EDUCATION

The higher education was also considered as important component of overall education system especially contribution for research and technology and following items were the main focus in the education policy and were emphasized:

- Expansion of facilities in the existing institutes and for this purpose a good number of autonomous colleges be created.
- College education will be designed to suit the needs of specialization
- Methods of teaching-Improved with use of audio-visual& electronic media Standard of education be raised & the coordination UGC & state level council will be made.
- Development of Science &Technology.
- Preparation of Teacher will be modernized.
- Attention will be paid for Research &Application of Research foundations.

About more than two decades, when the new education policy was drafted in the year 1986, and implemented in the country, the educational experts who were all-round specialist had great foresight about the trends which may prevail from time to time and the one at present situation. They had laid stress on the broad objectives which includes the education techniques, change required in course content and greater attention towards higher education for providing skilled people to enable them for earning livelihood and build nation stronger and developed Our Educational practices require revitalization so that we could be able to cope up with challenging demands of new generation of the present century The latest development of Sc &Tech. have ensured incredible scope of improved practices in terms of use of appropriate technology for education at all levels. There is also a dire need of a change in instructional design to suit the renewed goals and objectives of instruction. the very credibility of the teaching community might be questioned by progeny. The present seminar will definitely serve the purpose of harnessing educational technology in the light of futuristic planning for curriculum innovations for 21st century at collegiate university level.

In our country the first degree has not meant specialization of any kind; that is achieved only in certain universities and that too at honours level. However, standards of performance have deteriorated a great deal as compared to, for instance, the beginning of the century. The important consideration of the curriculum designing is focused for the following points which need an urgent attention of the academicians & subject experts.

VALUES

There is much concern over the erosion of values among the students in schools & colleges. The curriculum designed at the school and college levels make conscious and deliberate efforts towards developing desirable values taking care that the values promoted are universal in character and in accordance with the tenets of our constitution. Special efforts of curriculum experts would be needed to eliminate obscurantism, religious fanaticism, violence, superstition and undesirable attitudes like fatalism and casteism from the minds of the students. They should explore the possibilities of Value-Orientation on the basis of curricular analysis at all levels of education. This value education is required for both the students & teachers of higher education. They must know to respect the dignity of the individuals & good living.

As laid down in the New Education Policy 1986 document, the curriculum specialists have to make all out efforts ' to promote values such as India's common cultural heritage, egalitarianism, democracy and secularism, equality of the sexes, protection of environment, removal of social barriers, observance of the small family norm and inculcation of scientific temper.

SELF- LEARNING

In most of the curricula, stress, in general, is wrongly i given to the quantum of knowledge and not to be the student who is the receiver. There is too much of classroom instruction and too little of education of the fingers. We have also to examine how far our Existing curricula are in tune with our social needs and future aspirations and their relevance to our country's goals. At present the syllabus is such that the knowledge is brought to the student. But this process should be reversed and the student instead of being supplied with the knowledge should go seeking knowledge. This aspect has two phases. The dividing line need not be rigid. In first phase the teacher should initiate the student and arouse his curiosity. In the second phase the student goes exploring. This is self-learning which is true learning. In this phase, activity exploration and discovery should be emphasized. Our curricula should be designed in such a way that the students get lot of opportunity for self – learning & avoiding indoctrination of things on students.

Knowledge & Employability

Knowledge is rapidly increasing. Changes are taking place so fast that knowledge learnt becomes obsolete every 5 or 6 years. New methods are coming into being with great rapidity with which we can learn. The students of 2000 A.D. and later need a far better education to produce and to contribute on a decent job. Virtually every job in the country requires Skill with information- processing technology. Revision of curricula keeping pace with the tremendous progress of knowledge is of utmost importance. Though the general objective of the education is to acquire the knowledge about basics of the social set up & its development but the main purpose of the education is the development of skills through timely revisions in the contents of curriculum with the introduction of new concepts & innovation mainly based on IT-enabled services.

Growing Influence of Tele-communication & IT

In the present age of science, technology, cybernetics& computers, ,it becomes essential for each &every nation of the world to take effective steps for its development, which includes so many aspects of life i.e. social, cultural, economic development & are a definite constituents of it. To take the nation on the path of development, it is essential that education be used a tool for the development of human resources, it is why that the ministry of Human Resources Development. Therefore, Computer aided learning programmes are fast replacing drill books. As software improves, they will begin to replace the usual kind of text books as well. More teachers should be actively involved in preparing the software. The best computerized learning programmes already include certain forms of artificial intelligence that can diagnose the students learning deficiencies and tailor instruction to remedy them. New improved syllabi and instructional material in computer education have to be developed and utilized on a large scale immediately in all educational institutions. Teachers hand books have to be prepared in order to explain the spirit behind the new curriculum and the best methods for imparting instruction on the subject.

A COMMUNITY INVOLVEMENT

Every course of study and its curriculum must be as per the needs and aspirations of the people. Therefore, community involvement is essential for removing the artificialities in the existing system of education to which only small segment of our population is exposed. No civilized nation can afford to have such a large percentage of illiteracy s we do. If we want to bring the total population beyond the threshold of education then we need the whole hearted cooperation of the community.

DESIGN OF COURSES

As already discussed that the courses of studies for higher education programme need to be redesigned to meet the growing demands of specialization, to provide flexibility of courses to facilitate mobility across courses and to update and modernize existing curricula. The criteria of quality and relevance of higher education should be given top priority. International standards have to be maintained while restructuring the courses.
The teachers at all levels have the responsibility of changing the tone and content of education to make it meaningful for the students who would need a sound education for a better future. The curriculum has to be responsible to the needs and aspirations of the society. That undergoes change with the passage of time. The concerns and priorities of the nation should be suitably be reflected in the curriculum at all levels.

The above suggestions have been made in context of the Second Regional Conference of the World Council for Curriculum and Instruction – India chapter, on the theme Curriculum Innovation for 2000 AD at university of Mysore and the regional college of Mysore. The purpose for holding this conference is very clear. Knowledge is growing at a fantastic rate. Modern science and technology are surging ahead at a breath taking speed. Old traditions and values are crumbling everywhere, with hardly anything viable insight to replace them.

Role of UGC

The expansion of university & college education since independence has been achieved through the efforts of individual states & central govt. help. A definite & more systemic efforts had begun with the setting up of the University Grants Commission in 1953,with a mandate coordinate, regulate,& maintain the standard of the university & college education in the country. The UGC has played this role by giving support to colleges & universities. & strengthening physical & academic infrastructure a human resources. Its approach on relevant education is governed by many considerations. It helps the universities & colleges to develop curriculum with latest knowledge in the subject & adopt such enriched curricula, promote vocational & career-oriented courses that promote human right values. In the year, The UGC had prepared model curriculum. Therefore, a useful curriculum materials are to be produced in good measure at the state level. The national curriculum framework outlines not only the core of studies in different

disciplines at different levels, but also the core contents that should go into the proper education of a citizen of emerging India. Here I quote the expert views of the great academicians in the form of resolution passed at the conference at university of Mysore under the auspices of the World Council for Curriculum & Instruction-India chapter. The conference was held on the theme "Curriculum Innovations". The conference was planned to achieve the following objectives given later in the presentation. The curricular implication for the future in respect of areas like the education of the disabled/gifted, value education technology, life-long education,& information processing technology. The UGC also focused on the new curriculum in different disciplines which should promote logical & critical thinking emphasizing intellectual of the subject's education technology should also be explored so that the students learn to acquire the information on their own. The imparting of higher education involves promotion of higher education which serves as human resources for economic, social, & cultural development of our nation. To achieve that end, the curriculum should be such that it gives:

a) Basic foundation of the various subjects & discipline to the students.
b) Also promotes Skills,
c) Facilitate employability
d) Right values that meet human requirements for economic, social, & cultural ends of the society

The above part of the presentation describes the role of education for the development of the nation & particularly the necessity of making relevant courses by regular revisions & innovations in them. It also reveals the background of formulating the education policy & its main areas of thrusts & priorities for the national development. The second part of the paper deals with the curriculum- the core basis & pivots of the education system & explains the important consideration for making innovative subjects/ relevant courses especially in the light of present age of information & communication technology which has revolutionized the entire concept of education in relation to development of nation in general & the human resource in particular.

What is Curriculum

The curriculum in its simple meaning includes an organized pattern of education programme & tries to answer about, how & when organization of curriculum was a simple matter in the earlier days of the development of formal education. Its emphasis was teaching three R"s through lecture method. However with the increase of the knowledge & advancement of the human society, the organization of curriculum has become quite complex.

If the knowledge is limited, skills are limited & resources are sufficient, then there would have been no complexity in the development of curriculum. In fact, curriculum can be a problem of advanced & relatively free society where considerable opportunities are available. Curriculum is a problem of choice from amongst the variety of different materials to be learnt. Hence, curriculum is to make wiser decisions as to which subjects

amongst so many, be studied. An curriculum should indicate clearly the period of introduction of different activities both academic & co-academic keeping in view the socio-psychological principles of development, socio personal factor etc. Organization of instructions should consider the sequence of system of ideas, things, human experience etc.

Etymologically, the word curriculum is derived from the latin word "currer" which means 'run" a chariot race, runway or path, laid way i.e, laid to reach the goal. The curriculum means a run way a course which a person runs to reach a goal, it consists of a number of subjects taught in the school. This is a narrow view point.

Bent Rodyard & Henry defines it as follows "curriculum in its broad sense, includes the complete school environment, involving all the courses, activities, reading & associations furnished to the pupils in schools.

ANALYSIS OF THE CURRICULUM

At the time of framing up a course of study (curriculum) for higher education programmes the concerned people for the purpose of development of suitable curriculum the following requisite must be found in the contents of curriculum.

1. Informal programmes with the more relaxed atmosphere with greater emphasis on student Participation and involvement.
2. Emphasis on value clarification and value analysis
3. Emphasis on critical thinking and enquiry
4. Development of the skills of an enquiry and decision making and problem solving is a fundamental objective
5. Specifics are considered and learning is generalized so it can be applied to various situations
6. Changes arising from advancement in science and technology are considered. Some attention is being given to futurism
7. Broadening the tools of learning beyond the textbook. Students are encouraged to share their ideas and opinions
8. Greater emphasis put on problem solving
9. Current events and worlds affairs are an important part of all the programmes.

Therefore these be considered

10 A flexible programme designed and a variety of teaching materials and strategies be available

10 Abridge be built to other subjects

11 Full participation of teachers in every phase of the curriculum development process

12 Moving a substantial proportion of educational activities out of the classroom and into the library, the school and the community. Give students freedom.

The above points have been given as a sort of guidelines to the specialists of education for framing up the course of studies with the most suitable curriculum which conforms to the needs of the public at National as well as International levels. It is an attempt made by the author of this article to achieve the following objectives; to acquaint the participants with:

- The flexibility required in educational planning and administration in meeting the curricular needs of the 21st century
- The strategies required for fulfilling the curricular demands of the 21st century
- Exchange of information on curricular challenges and developments in the participating countries
- The curricular implication for the future in respect of areas like the education of disabled/ gifted value education, education technology, lifelong education and information processing technology

Characteristics of Curriculum

As understood above the curriculum embodies all the experiences which are utilized by the school to attain the aims of education. The curriculum the curriculum provides experiences to educate so he may achieve complete development. Curriculum includes not merely syllabus & books but all those experiences 7 relationship which are indulged in by the education both inside & outside the school.

- Media to an end
- Total Activities
- School Environment
- Balanced Personality
- Mode of Living
- Dynamic
- Reflection of Educational Trends
- Index of Philosophy of Life
- Achievement of Goals

Importance of Curriculum:

- Realization of educational Aims
- Encircling
- Suitability of teachers
- Methodology
- Acquisition of Knowledge
- Value of Citizenship
- Formation of character
- Satisfaction of needs

The importance of curriculum innovation can also be felt with the establishment of separate department of "Curriculum and Instruction" in many Universities at international level & full-fledged Professors of this disciplines are appointed. In the end of the presentation I observe that the present curriculum emphasizes obsolete information. Therefore, I suggest that the new curriculum in different disciplines should be designed to include all the aspects of social requirements with innovations in the course of studies & comfortable & appropriate environment for overall development of co-curricular activities. It should promote logical & critical thinking emphasizing the intellectual value of subjects. Educational technology should be explored so that students learn to acquire the information on their own. Most of the stress should be on job-oriented course in every discipline with introduction of more & more innovations & hence creates employment opportunities.

II. Academic Initiatives for Content Development

5. The Encompassing Implications of Feed-back and Feed-forward Mechanism in Curriculum Development[12]

Introduction

Curriculum Development has been in the limelight of academia over the last few decades and a lot of research had been initiated since 1950s regarding planned curriculum changes. Such a planned curriculum change encompasses several factors affecting curriculum innovation and development. These factors are diverse, yet interrelated, complicated and perpetually moving.

The term ***curriculum***, broadly defined, includes goals for student learning (skills, knowledge and attitudes); content (the subject matter in which learning experiences are embedded); sequence (the order in which concepts are presented); learners; instructional methods and activities; instructional resources (materials and settings); evaluation; and adjustments to teaching and learning processes, ***based on experience and evaluation***.

It is important to note in the above meaning of curriculum that the entire gamut of curriculum development and constant learning happens through ***experiences and evaluation.*** Curriculum innovation is based on one of the most important strategic function: **Feed-back and Feed-forward.**

Curriculum Development – Evolution

Before we go further, a brief introduction to Curriculum Development would be useful. Since the 1950s there have been concepts of a planned curriculum change (Eggleston, 1977). Such a planned curriculum encompasses several parameters affecting curriculum innovation and development. These factors are diverse, inter-related, complicated and perpetually evolving over the decades. Curriculum Development models appropriate for one programme may be impractical for another programme. Hence, curriculum development cannot be based on singular, unified principles and concepts. Hopkins (2001), writing on school improvement, suggests developing a ' variety ' of curriculum programmes and models, further corroborating the point stated above. Curriculum is an 'active and alive' concept, thus necessitating the adoption of pertinent strategies and processes for its development, keeping in mind the changing scenario of the industry and academics.

Hopkins (2001) attributes the curriculum, along with others, as being a powerful tool that can affect the learning process to the advantage of the students. He stresses the vital role of ' comprehensive ' responses compared to ' diffuse responses ' with regard to curriculum

[12] Dr. Prakash. M, Principal, Seshadripuram First Grade CollegeYelahanka, Bangalore.

innovations and development. The former are well developed and well planned curricular innovations, such as the ones that are the focus of the three strategies. Also, effective teaching, as concurred by Hopkins (2001:68), involves the ' holy trinity of teaching ' : the teaching strategy, the curriculum content, and the learning needs of the students, thus signifying the importance of curriculum innovations that lead to a desirable outcome in the triad. Fullan (1982) has also emphasized the role of the curriculum in educational innovation, in shaping the learning experiences of students.

Context Relevance in Management Education

Context Relevance in Management Education advocates Curriculum Development and innovation based on the local needs, with the active participation of the professionals from the industry, teachers and students. This 360 Degree Approach in Management Education would enhance the context in which Management subjects would be delivered to the students. For example, Harvard Business School is considered the leader in "Case Study Approach" in Management Education. Most B-Schools in the country (including the IIMs) used it as a benchmark and started using the same cases in their schools. It was not long before they understood that Case Study Concept to teach Management was great; but the Cases itself had to be Indianized! So, at every step, the context relevance becomes necessary while delivering it to students. After all, these students take up corporate responsibilities from their first day of job and become visionaries of their companies in the long run.

Any institute that advocates Context Relevance will appreciate and agree that a constant interaction between the Institute, Industry and Students is compulsory to bring relevance in Management Education. The outcome of such interaction should see the light of the day through FEEDBACK and FEEDFORWARD mechanisms.

Feed-Back and Feed-Forward Mechanism:

Control is one of the most important functions of any Management activity, which measures and corrects performance of the activities in order to adhere to plans that have been laid down. It involves knowing the extent of conformity with the plans adopted to make sure that the objectives of the organisation are attained. Any errors and deviations are promptly reported, analyzed and rectified. Since it forces events to conform to plans, control becomes an integral part of planning and the same characteristics of unity, continuity, flexibility and pervasiveness.

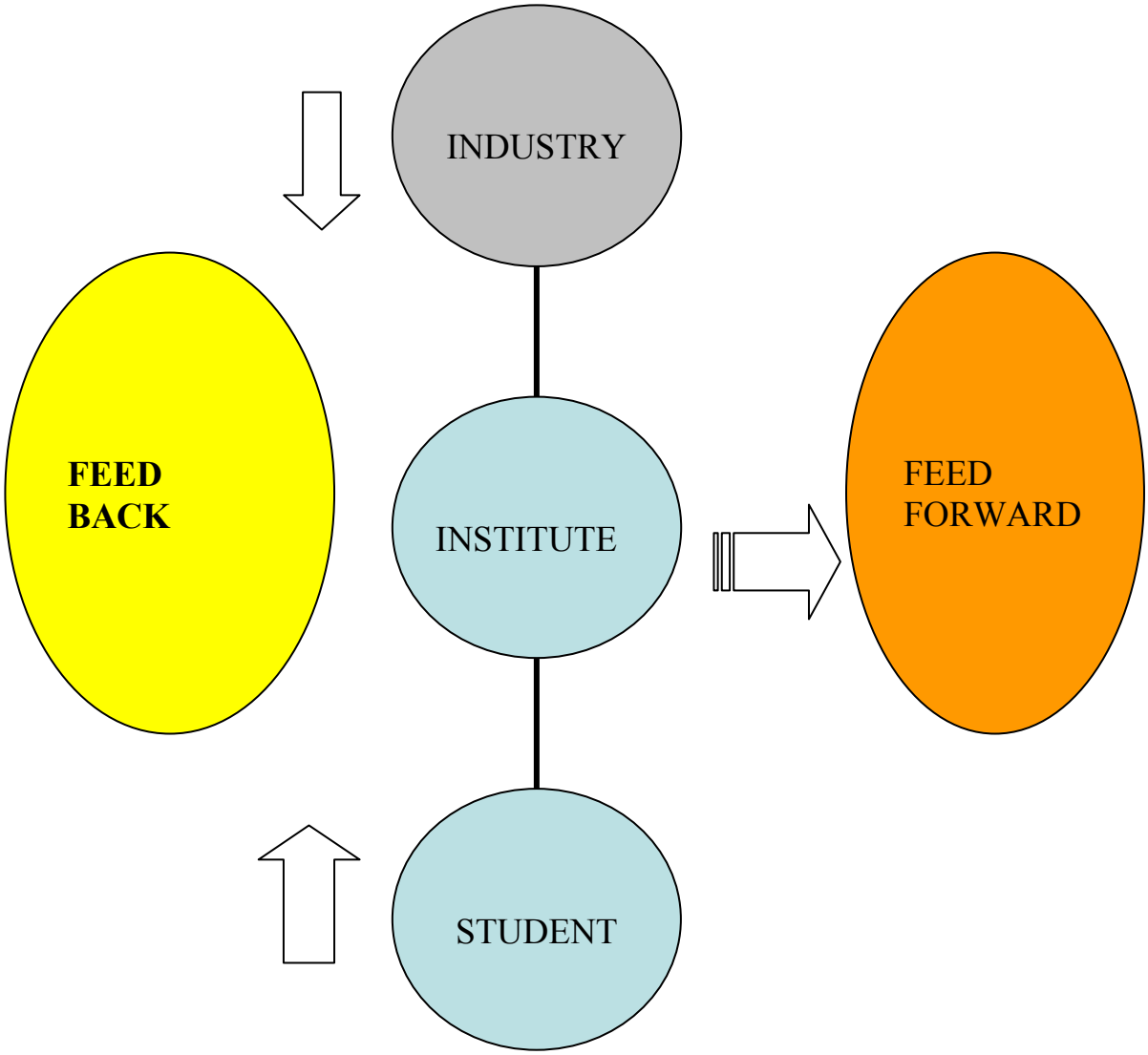


Figure: 1 The Flow of the Feed-Back and Feed-Forward Mechanism

Feed-back is the process of adjusting future actions based upon the information about past performance. It is based upon inter-dependence of different parts of a system. The individual responsible for control needs a continuous flow of information relating to the actual performance so that deviations are promptly detected and corrected.

On the contrary, Feed-forward is the reverse of feed-back. It is a 'self-fulfilling' prophesy' process that turns logical cause-effect relationship upside-down. Feed-Forward as a management term that was coined by the world-renowned American Management Professor Marshall Goldsmith in one of his prominent management articles "What Got You Here Won't Get You There". Prof.Marshall felt:

"When you think of giving feedback, start giving feed-forward - focus on the promise of the future rather than the mistakes of the past."

Empirical Research

An empirical Research was undertaken to understand the **Application and Implications** of the Feed-back and Feed-forward Mechanisms. Both Management Educational Institution and Recruiters (consultancy firms and HR Departments of corporate houses) were researched in order to assess the application and implication of feed-back and feed-forward mechanisms.

Outcomes from Management Educational Institutions

Some of the outcomes that are relevant to the study include:

Parameters	***Relevance of the parameter***	***Outcome***
Vision of the MBA Institute	The Vision indicates the extent of goal commitment of the Institute	Most Institutes want to achieve the slot of Top B-Schools, compete globally, produce leaders and make a difference to the corporate world and society
Value Addition to the Students	Identifies the ways in which Institutes try to mould the students' personality	The areas for Value Addition include: • Communication skills • Leadership Training • Aptitude Training • Team Building • Soft-skills Most institutes do not look into Community Development, Sports
Orientation programme	Orientation tries to bring in clarity and commitment on the part of students towards the programme	Most Institutes offer the Orientation programme
Faculty Interactions and Brainstorming	Important to understand the interactions of faculty and their contribution to the Programme	Most institutes have faculty interactions for the purpose of Pedagogy, Student Assessment and Evaluation, Student Development, Industry Visits and placements. There has hardly been any thrust on Curriculum Development.
Innovation in Curriculum	The relevance of innovation in curriculum is of utmost important in a management institute.	Most Institutes felt that Innovation was important but could not be pursued due to University set-up. So, Curriculum Innovation could not be implemented.

Feed-back from Students	To understand whether constructive criticism was appreciated through students	Surprisingly, all the respondents encourage feedback from students on various areas.
Involvement of people in strategy formulation	The response would indicate whether a 360 degree approach towards planning was adopted by the Institute	There was a mixed response. Top Management and Director / Principal / HOD were the most common answers. However, some mentioned the involvement of faculty and Placement Officer too.
Feed-back from Recruiters	Most institutes were involved in analysis of the past placements. But, they are only indicative of the outcomes. The real solutions to them would come only when a feedback would be taken from the recruiters.	A 100% positive response was received from Institutes – that feedback was taken from the recruiters to understand the lacunae and bring about changes solicited to improve the situation.
Integration of Feedback with future plans (FEED-FORWARD)	Unless the feed-back is integrated into the future plans and policies of the Institute, feed-back is hardly of any use.	Surprisingly, most Institutes have claimed that the feed-back received through students, faculty and recruiters have been integrated into their future plans.
Problems faced by Management Institutes	It is a self-declaration of what normally ails Management Institutes	Most respondents identified the following problems ailing Management Students: • Lack of committed students • Lack of committed faculty • Lack of vision • Lack of funds

The above table is a bird's eye-view of the Institute's responses towards Feed-back and Feed-Forward mechanism in Management Institute. Most Management Institutes claim that most of the best-practices are in place and the feed-back (both formal and informal) has formed a foundation for their future plans, policies and strategies.

HOWEVER, THE OUTCOMES FROM OUR RESEARCH WITH SOME OF THE BEST RECRUITERS TELLS A DIFFERENT STORY!!

Formal and informal interviews held with the Recruiters of Management Graduates gave us insight into what actually ails Management Education today. The Institutes have been doing their bit in order to enhance the employability of the students; but have not bee able to produce 'real-time' Management graduates who can take on corporate challenges at

the expectation levels of organizations. So, there seems to be a big lacuna somewhere in FEED-FORWARD mechanisms adopted by the Institutes. This further means that Institutes have probably not been able to deliver promises of producing / generating employable students to the corporate world.

COMPETENCY BASED APPROACH TO ENHANCE EMPLOYABILITY

Continuing the emphasis on feedback and feed forward mechanism, the research would also look at the competency improvement of management students through COMPETENCY BASED APPROACH.

This research paper presents an effort to revisit the concept of competence & competencies, and outline a model for management education. The model is developed by working starting with the highest outcomes desires i.e., the desire for competence in the workforce in an organization and back tracking to the development of discipline-specific competencies which themselves are treated as a function of attitudes, skills and knowledge. The crux in the model is in the fusion of these three components of a competency in the development, delivery and assessment stages of a management course.

The core attributes for a world class work force today include the following: flexibility, transferability, adaptability, a spirit of innovation, quality consciousness, collaborative abilities and the enterprising. Each employee today needs to be competent enough and continue to remain competent in a changing environment.

Hence, Competence can be defined as the capacity to realize '*up to standard'* the key occupational tasks that characterize a profession.

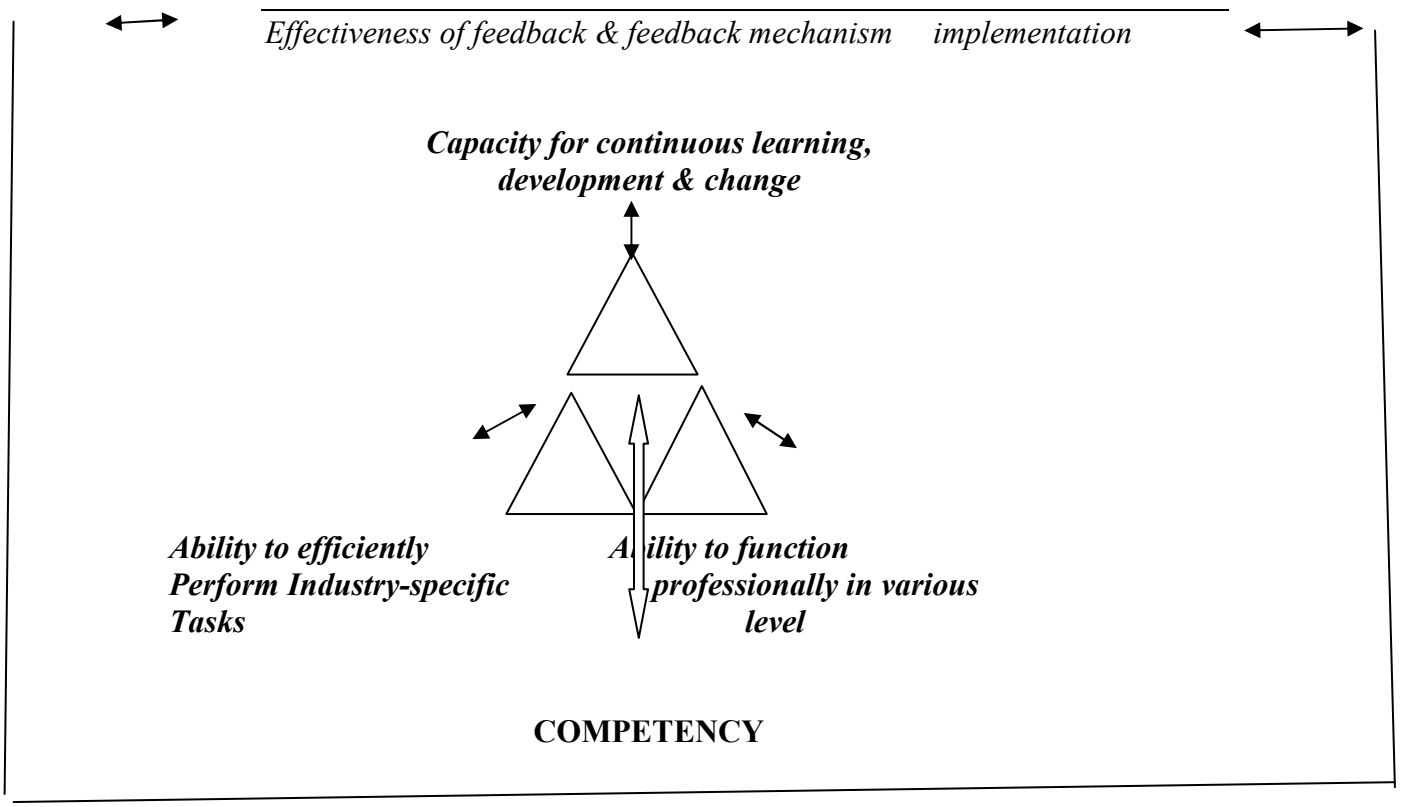
Listing the few characteristic features of competence is:

- It is the ability to perform at a desired level.
- It is the ability to choose and use the attributes.
- It is a mere description of 'what someone can do'.
- It represents the totality of knowledge, skills and abilities required for professional practice.

Under this approach, a picture of an ideal management graduate will be developed, where two basic questions needs to answered;

a. What is the knowledge, skill sets and values that the ideal graduate will possess?
b. At what level of sophistication will the management students be able to use them?

Here, the major challenge lies in converting the identified attributes into specific, measurable i.e., both qualitative and quantitative measures and achievable outcomes. The researcher will articulate what the successful management student will be to do upon programme completion, in *performance terms*.



A Competency in the above model is conceptulized as the capability to choose & apply an integrated combination of knowledge, skills and attitudes with the intention to realized the assigned tasks.

For increasing competency, industry plays a role of mentor, critic and event client. The overall competency development- the initial investment of time, money and ideas must help in forgoing long standing bond between the industry and business educators- ensuring that feedback from any industry is noted when any institution work to prepare future leaders for an industry.

Changes to be inculcated in the present system:

1. Coming out from traditional work time mechanism.
2. More involvement from faculty in-accreditation process.
3. Shift from template approach (curriculum development designed by the university) to an institution specific mission-based on output approach.
4. Providing corporate specialists who have mastery- in various levels of training and development for management students.

5. Not just emphasizing on course development, but mainly focusing on increasing the competency among the management students.
6. Constructing and evaluating portfolio of-leadership skills, inter-personal skills, technical skills, decision making skills, writing skills, corporate communication skills, listening skills.

Conclusion

An evolving curriculum must support an ethos of continuous quality improvement on the journey of well-educated, successful management graduates. The Feed-back and Feed-forward mechanisms are very crucial towards curriculum development as well as enhancing the "Employability skills" of students.

Competency based curriculum development is a viable solution for preparing management students to function in a fast changing context.

6. Academic Initiatives – Contents, Methods of Delivery and System of Evaluation that Make Higher Education Responsive To Innovations and Change[13]

Introduction

Teaching and learning are the two sides of a coin. The most accepted criterion for measuring good teaching is the amount of student learning that occurs. Improving teaching requires identifying problems with existing academic practices and then applying a combination of sound educational and psychological principles to devise a better approach. The new challenge before the country at the beginning of the twenty first century is to become a developed society by the year 2020, which requires that not only a vibrant economy driven by knowledge has to be ushered in soon, but also a new society where justice and human values prevail has to be created. There are consistently high correlations between students' ratings of the "amount learned" in the course and their overall ratings of the teacher and the course. Those who learned more gave their teachers higher ratings (Cohen, 1981; and Franklin, 2001). This same criterion was also put forth by Thomas Angelo, when he said; "teaching in the absence of learning is just talking." Doyle.T. Higher education has expanded massively in a range of institutions, from universities to university colleges and to colleges of further education. This raises questions about equitable practices and provisions, for diverse students and for different institutions.

[13] Paper presentation by Dr. Shivali Sharma.

India has significant advantages in the 21st century knowledge race:

- It has a large higher education sector — the third largest in the world in student numbers, after China and the United States.
- It uses English as a primary language of higher education and research.

Equally important to 21st century learning is the application of learning science research and principles to learning methods and the design of learning activities, projects, assessments and environments.

Framework for 21st Century Learning: The Framework for 21st Century Learning consists of core subjects and themes that revolve around three core skills: life and career skills, learning and innovation skills, and information media, and technology skills. These are the skills that students need in order to be successful in the 21st century. The core subjects include: English, Reading, Language Arts, World Languages, Arts, Mathematics, Economics, Science, Geography, History, and Government and Civics. In addition to the core subjects, schools must integrate the 21st century interdisciplinary themes in the daily instructional activities. The themes consist of global awareness, financial, economic, business, entrepreneurial literacy, civil literacy, health literacy, and environmental literacy. The "pools" underneath the rainbow represents the paradigmatic "shift towards supporting 21st century learning, understanding, and skills performance" (Trilling & Fadel, 2009, p.120). The "pools" consist of standards and assessments, curriculum and instruction, professional development, and learning environment. Support for curricular and academic reforms to improve student choices, technology-assisted participatory teaching-learning processes and increasing the provision of relevant education, with an emphasis on feed-back-based holistic examination/evaluation system. A fine balance between the market oriented professional and liberal higher education shall be the hallmark of such initiatives.

Principles of effective learning important to 21st century education practitioners include[4]:

- **Authentic learning** - learning from real world problems and questions
- **Mental model building** - using physical and virtual models to refine understanding
- **Internal motivation** - identifying and employing positive emotional connections in learning
- **Multi-modal learning** - applying multiple learning methods for diverse learning styles
- **Social learning** - using the power of social interaction to improve learning impact
- **International learning** - using the world around you to improve teaching and learning skills.

A particularly effective learning method that incorporates these principles are group learning projects driven by an engaging, real-world questions or problems. These inquiry- and design-based, collaborative learning projects are a powerful learning method especially suited for building the essential 21st century skills-and-knowledge. To improve the quality of higher education need is to:

- provide increasing numbers of students, especially those from disadvantaged backgrounds, with specialized skills, because specialists are increasingly in demand in all sectors of the world economy.
- produce a body of students with a general education that encourages flexibility and innovation, thus allowing the continual renewal of economic and social structures relevant to a fast-changing world.
- teach students not just what is currently known, but also how to keep their knowledge up to date, so that they will be able to refresh their skills as the economic environment changes; and
- increase the amount and quality of in-country research, thus allowing the developing world to select, absorb, and create new knowledge more efficiently and rapidly than it currently does.

There is much debate within the higher education community on how teaching or teaching effectiveness may be defined (Braskamp, and Ory; 1994). For instance, Centra (1993), defines effective teaching as "that which produces beneficial and purposeful student learning through the use of appropriate procedures" Braskamp and Ory, (1994, p. 40) include both teaching and learning in their definition, defining effective teaching as the "creation of situations in which appropriate learning occurs; shaping those situations is what successful teachers have learned to do effectively". Interacting with foreign universities, changing the curriculum, reorganizing courses and creating a united structure has helped universities align themselves with institutions of higher education in other CIS countries and in the Western world. Some universities have started exchange programmes and credit transfer systems. Efforts to develop unified structures and evaluation systems have helped to develop exchange programmes throughout the world.

Introduction of credit system

- Introducing the Academic Credit System was meant to position universities in parallel with international standards. It involved long-term preparatory work within universities. Meanwhile, each course in the list should correspond to a specified amount of academic credits bearing in mind the total contact hours, difficulty levels and the frequency of practical sessions and evaluation procedures. Each course should also have its prerequisites – list of courses required to pass in order to be registered. Activities must be organized to raise awareness of the academic credit system and to create incentives to motivate students. Students should be made aware of different ways to get a degree.

- A comprehensive mechanism is developed in order to create incentives for students to advance in their studies. This allows students to transfer credits across universities. Further, new strategies have been implemented related to 12th FYP in the sphere of equity should be to eliminate gender disparities and to significantly reduce urban-rural, inter-regional and inter-social group disparities. This will call for a much larger facilitative and promotional role for the central and state governments as well as the private sector in higher education towards the hitherto marginalized sections of the society. Thus, the major emphasis of the 12th FYP should be on promoting inclusiveness so as to accommodate more students from the marginalized sections into the ambit of higher education in respect of the following goals.
- Promoting Equity in all Disciplines of General and Technical/Professional Education: The 12th FYP shall aim at correcting the skewed growth of higher education towards technical and professional education in recent years due to large scale private sector participation. The Plan shall also focus on improving Inclusive and Qualitative Expansion of Higher Education 33the accessibility of marginalized groups to courses in the emerging/employ mentoriented areas, including technical and professional education.
- Reducing Regional/Disciplinary Imbalances: The growth of the higher education institutions is not uniform across the country. The 12th FYP shall aim at correcting the imbalances in the distribution of institutions and also the courses.

Innovative Instructional Methods

The main aim is to reward excellent teaching methods which stems from a variety of factors including adequate staff, research-based education, teaching through advanced language, improving computer skills among students best and innovative teaching practices. Innovative instructional methods are proliferating in higher education and are integral to curricular reform efforts. Supported by research on how students learn, instructional innovations emphasize active and experiential learning (i.e., learning by doing); inquiry, discovery, and problem-based learning; collaborative and cooperative learning in groups; writing to learn; undergraduate research; academic-service learning; and instructional technology. Although lecture and small group discussions are still the dominant instructional methods, active and collaborative learning is now commonplace in higher education. As reported by Kuh in (2001), 90 percent of seniors polled in a national survey indicated that they had participated in group work in class during college.

Curriculum Coherence and Integration

Strategy needs to be improvised by educational experiences calibrated to the developmental learning needs of students at different stages of their collegiate lives often comprising orientation programs, orientation courses, co-curricular offerings, and developmental courses for underprepared students, access to academic support services etc. The goal of these offerings is to ease the transition from high school to college, to

teach skills and attitudes to enable students to succeed in college, and to improve retention, particularly among students. This will help in promoting curricular discussions between teachers and college faculty and by providing collegiate experiences to motivate younger students.

TQM in improving classroom instruction

It is not difficult to find semantic links between teaching and total quality management. Almost every known strategy for teaching effectively cited in standard pedagogical references has counterparts on a list of TQM components compiled by Grandzol and Gershon (1997). Examples include writing instructional objectives (clarity of vision, strategic planning); student-centered instruction (customer focus, empowerment, driving out fear), collaborative or cooperative learning (adopting a new philosophy, teamwork), assessment (measurement, benchmarks, continuous improvement), and training and mentoring new faculty members (human resource development, employee training).

Use cooperative learning Cooperative learning (CL) is instruction that involves students working in teams to accomplish an assigned task and produce a final product (e.g., a problem solution, critical analysis, laboratory report, or process or product design), under conditions that include the following elements (Johnson et al. 1998):

- Positive interdependence. Team members are obliged to rely on one another to achieve the goal. If any team members fail to do their part, everyone on the team suffers consequences.
- Individual accountability. All team members are held accountable both for doing their share of the work and for understanding everything in the final product (not just the parts for which they were primarily responsible).
- Face-to-face promotive interaction. Although some of the group work may be done individually, some must be done interactively, with team members providing mutual feedback and guidance, challenging one another, and working toward consensus.
- Appropriate use of teamwork skills. Students are encouraged and helped to develop and exercise leadership, communication, conflict management, and decision-making skills.
- Regular self-assessment of team functioning. Team members set goals, periodically assess how well they are working together, and identify changes they will make to function more effectively in the future.

Integrate multimedia technology into the teaching and learning process: With the rapid progression in the PC and multimedia technologies, it has become feasible to integrate multimedia technology into the teaching and learning process. What has been the conventional teacher-centred approach is now seeing a shift into one which

emphasises on student-centred learning. Traditional educational content can now be transformed into interactive multimedia content by using authoring packages. Information services like Google Search, Google Scholar, GPS-enabled devices, and e-books, provide learners with improved access and communication opportunities. This infusion of multimedia into teaching and learning has altered instructional strategies in educational institutions. Hence, with the advent of this pervasive information technology, many colleges and universities, are currently gearing their teaching and learning towards one which uses multimedia technology to enhance the student's learning process. With the availability of the devices such as the CD and Internet, in particular the World Wide Web, interactive learning instructions can be delivered to the learners in an asynchronous learning environment.

Benchmarking: Strong quality control measures to assure performance above an acceptable benchmark is essential for the institutions. We are at the moment weak in this regard. The various rating agencies shall evolve scientific, transparent and consistent benchmarking techniques for this purpose. A regulatory system to ensure compliance to the set bench marking is needed with sufficient powers to close down non-complying institutions is a need of the hour. The Higher Education Policy needs to incorporate such features in it in the interest of the nation.

Universities, students' welfare: At the Universities, students' welfare, particularly scholarships, stipends etc., should be given due importance. Expenditure on administration and other miscellaneous activities needs to be rationalized.

Evaluation and Assessment Systems

The statement "If you don't have any goals, you don't have anything to assess" expresses the close relationship between goals and effective assessment. It is goal achievement that effective assessment is generally designed to detect. An effective assessment program helps a college's or university's administrators and faculty members understand the outcomes – the results – their efforts are producing and the specific ways in which these efforts are having their effects. During the last 50 years, higher education in India has made great strides leading to the Indian higher education system becoming one of the largest systems in the World. Unfortunately, it is the Indian experience that this expansion in quantity has overshadowed the quality of higher education. A concerted debate has been going on to determine the best system of assessment to be followed by the Universities in the twenty first century. It is desirable that a certain optimum degree of standardization in the examination system and in the assessment of students is put in place before grades are awarded to them. Evaluation of Teachers by Students & Peer Assessment Quality of teaching and quality of research are linked to two factors namely the quality of the students and the quality of infrastructure, library and sophistication of the laboratories available besides a close monitoring of teaching standards. Assessment of teachers by students, peer Assessment and self appraisal need to be implemented more

vigorously by all higher education institutions. A follow-up of such assessments with counselling, performance based reward system, and at times stringent corrective measures are needed for maintaining enhanced quality in higher education.

In order to encourage higher education institutions to further improve teaching quality and to deepen the reform of education, we need to establish a quality assurance system and a monitoring mechanism with high efficiency and valid results, hence the following policy:

- Establish a five-year cycle of evaluating institutions of higher education in a systematic and standardized manner.
- Maintain a database to collect the basic institutional information concerning college infrastructure and other basic facilities; make such information available to the public to strengthen public awareness of the effectiveness of higher education institutions.
- Perform program evaluation with the help from both institutions and professional agencies (organizations) to gradually establish an evaluation system and practice that aligns licensure of qualifications with recognition by professional organizations.
- Combine both internal and external evaluation efforts to actively encourage higher education institutions to set up their internal quality assurance mechanism.
- Develop a system that encourages non-governmental evaluation agencies and utilize such resources in the implementation of evaluation of universities and colleges.

Recommendations

- The Semester System should be preferred to the annual system in teaching and evaluation at the Indian Universities.
- Continuous Internal Assessment should be given the attention it merits in the students' academic programmes at the Universities.
- The Grading System with a linear 10-point scale and its equivalence in terms of percentage of marks should be followed uniformly across Universities and disciplines. However, the evaluation methodology may vary across disciplines Institutions.
- Pre-and Post-processes of examinations should be made transparent. i.e. the pattern of papers, evaluation methodology, disciplinary rules etc. should be properly documented and communicated to students well in advance.
- Appropriate and effective feedback mechanism (e.g. returning corrected answer books to students, responding to students' queries on the evaluation procedure, etc.) should be established at all institutions.
- Examination should be designed in such a way that at least some portion of it evaluates the students' insight into the subject.

- In the continuous evaluation based on objective-type questions, measuring the higher mental ability of students should be adopted and ICT may be effectively used to set and evaluate such papers.
- Proper orientation on assessment methods should be given to all the teachers, particularly to the newly appointed teachers. The Academic Staff Colleges set up by the UGC at different Universities may be assigned this task. A proper structure for Examination Reforms Units for the Universities should be evolved, supported by UGC to keep the nationwide evaluation processes at Universities under continuous scrutiny.
- All the examination processes should be computerized and recent advances in ICT should be exploited to make the process automated and efficient.
- A proper methodology should be evolved for product evaluation in professional courses.
- Research on the desirability and relevance of existing examination patterns and improvements there on in any given institution should be encouraged and facilitated.
- Innovative practices related to examination reforms should be empirically tested and institutionalized.
- The UGC may encourage Universities to organize Regional Level Experts' Workshops to look into various qualitative aspects of Examination Reforms, such as:
    - Testing Creativity;
    - Testing Application Aspects;
    - Testing both Fundamental and In-depth knowledge

Henceforth the rapid and wide-reaching demand for higher education requires, where appropriate, all policies concerning access to higher education to give priority in the future. If history serves as a guide, future learning institutions will emerge to reflect how a society creates and shares information, communicates important concepts to those new to a field of study, and generates spaces of discourse for disseminating and extending existing boundaries of knowledge.

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7. Academic Initiatives – Content Methods of Delivery and System of Evaluation That Make Higher Education Responsive to Innovations and Change[14]

Introduction

The higher education system in India has grown in a remarkable way, particularly in the post-independence period, to become one of the largest system of its kind in the world. However, the system has many issues of concern at present, like financing and management including access, equity and relevance, reorientation of programmes by laying emphasis on health consciousness, values and ethics and quality of higher education together with the assessment of institutions and their accreditation. These

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issues are important for the country, as it is now engaged in the use of higher education as a powerful tool to build a knowledge-based information society of the 21st Century. Recognizing the above and the basic fact, that the Universities have to perform multiple roles, like creating new knowledge, acquiring new capabilities and producing an intelligent human resource pool, through challenging teaching, research and extension activities so as to balance both the need and the demand, the University Grants commission (UGC) had initiated nation wise discussion on the said issues

On the eve of a new century, there is an **unprecedented demand for and a great diversification in higher education, as well as an increased awareness of its vital importance for socio-cultural and economic development,** and for building the future, for which the younger generations will need to be equipped with new skills, knowledge and ideals**.** Higher education includes 'all types of studies, training or training for research at the post-secondary level, provided by universities or other educational establishments that are approved as institutions of higher education by the competent State authorities'. Everywhere higher education is faced with great challenges and difficulties related to financing, equity of conditions at access into and during the course of studies, improved staff development, skills-based training, enhancement and preservation of quality in teaching, research and services, relevance of programmes, employability of graduates, establishment of efficient co-operation agreements and equitable access to the benefits of international co-operation. At the same time, higher education is being challenged by new opportunities relating to technologies that are improving the ways in which knowledge can be produced, managed, disseminated, accessed and controlled. Equitable access to these technologies should be ensuThe second half of this century will go down in the history of higher education as the period of its most spectacular **expansion:** an over sixfold increase in student enrolments worldwide, from 13 million in 1960 to 82 million in 1995. But it is also the period which has seen the gap between industrially developed, **the developing countries** and **in particular the least developed countries** with regard to access and resources for higher learning and research, already enormous, becoming even wider. It has also been a period of increased socio-economic stratification and greater difference in educational opportunity within countries, including in some of the most developed and wealthiest nations. Without adequate higher education and research institutions providing a critical mass of skilled and educated people, no country can ensure genuine endogenous and sustainable development and, in particular, developing countries and least developed countries cannot reduce the gap separating them from the industrially developed ones. Sharing knowledge, international co-operation and new technologies cHigher education has given ample proof of its viability over the centuries and of its ability to change and to induce change and progress in society. Owing to the scope and pace of change, society has become increasingly **knowledge-based** so that higher learning and research now act as essential components of cultural, socio-economic and environmentally sustainable development of individuals, communities and nations. Higher education itself is confronted therefore with formidable challenges and must proceed to the most radical **change and renewal it has ever been required** to undertake, so that our society, which

is currently undergoing a profound crisis of values, can transcend mere economic considerations and incorporate deeper dimensions of morality and spirituality.

Long-term orientation based on relevance

Relevance in higher education should be assessed in terms of the fit between what society expects of institutions and what they do. This requires ethical standards, political impartiality, critical capacities and, at the same time, a better articulation with the problems of society and the world of work, **basing long-term orientations on societal aims and needs, including respect for cultures and environmental protection.** Higher education should **reinforce its role of service to society,** especially its activities aimed at eliminating poverty, intolerance, violence, illiteracy, hunger, environmental degradation and disease, mainly through an **interdisciplinary and transdisciplinary approach** in the analysis of problems and issues. It should enhance its contribution to the **development of the whole education system,** notably through improved teacher education, curriculum development and educational research. It should aim at the creation of a new society - non-violent and non-exploitative - consisting of highly cultivated, motivated and integrated individuals, inspired by love for humanity and guided by wisdom.

Strengthening co-operation with the world of work and analysing and anticipating societal needs

In economies characterized by changes and the emergence of new production paradigms based on knowledge and its application, and on the handling of information, the links between higher education, the world of work and other parts of society should be strengthened and renewed. Links with the world of work can be strengthened, through the participation of its representatives in the governance of institutions, the increased use of domestic and international apprenticeship/work-study opportunities for students and teachers, the exchange of personnel between the world of work and higher education institutions and revised curricula more closely aligned with working practices. **As a lifelong source of professional training, updating and recycling,** institutions of higher education should systematically take into account trends in the world of work and in the scientific, technological and economic sectors.Within the framework of their anticipatory function, higher education institutions could contribute to the creation of new jobs, although that is not their only function.

Diversification for enhanced equity of opportunity

Diversifying higher education models and recruitment methods and criteria is essential both to meet increasing international demand and to provide access to various delivery modes and to extend access to an ever-wider public, in a lifelong perspective, based on flexible entry and exit points to and from the system of higher education. More diversified systems of higher education are characterized by new types of tertiary institutions: public, private and non-profit institutions, amongst others. Institutions should be able to offer a wide variety of education and training opportunities: traditional degrees,

short courses, part-time study, flexible schedules, modularized courses, supported learning at a distance, etc.

Innovative educational approaches: critical thinking and creativity

In a world undergoing rapid changes, there is a perceived need for a new vision and paradigm of higher education, which should be student-oriented, calling in most countries for in-depth reforms and an open access policy so as to cater for ever more diversified categories of people, and of its contents, methods, practices and means of delivery, based on new types of links and partnerships with the community and with the broadest sectors of society. Higher education institutions should educate students to become well informed and deeply motivated citizens, who can think critically, analyse problems of society, look for solutions to the problems of society, apply them and accept social responsibilities. In order to facilitate the acquisition of skills, competences and abilities for communication, creative and critical analysis, there is a need to encourage: **independent thinking and team work in multicultural contexts,** where creativity involves combining traditional or local knowledge and know-how with advanced science and technology. **These recast curricula should take into account the gender dimension and the specific cultural, historic and economic context of each country.** New methods of education will also imply new types of teaching-learning materials. These have to be coupled with new methods of testing that will promote not only powers of memory but also powers of comprehension, skills for practical work and creativity.

FROM VISION TO ACTION

Quality in higher education is a multidimensional concept, which should embrace all its functions, and activities: teaching and academic programmes, research and scholarship, staffing, students, buildings, facilities, equipment, services to the community and the academic environment. **Due attention should be paid to specific institutional, national and regional contexts in order to take into account diversity and to avoid uniformity.** Stakeholders should be an integral part of the institutional evaluation process. Quality also requires that higher education should be characterized by its international dimension: exchange of knowledge, interactive networking, mobility of teachers and students, and international research projects, while taking into account the national cultural values and circumstances.

The potential and the challenge of technology

The rapid breakthroughs in new information and communication technologies will further change the way knowledge is developed, acquired and delivered. It is also important to note that the new technologies offer opportunities to innovate on course content and teaching methods and to widen access to higher learning. Higher education institutions should lead in drawing on the advantages and potential of new information and communication technologies, ensuring quality and maintaining high standards for education practices and outcomes in a spirit of openness, equity and international co-operation by:

(a) engaging in networks, technology transfer, capacity-building, developing teaching materials and sharing experience of their application in teaching, training and research, making knowledge accessible to all;

(b) creating new learning environments, ranging from distance education facilities to complete virtual higher education institutions and systems, capable of bridging distances and developing high-quality systems of education, thus serving social and economic advancement and democratization.

(c) noting that, in making full use of information and communication technology (ICT) for educational purposes, particular attention should be paid to removing the grave inequalities which exist among and also within the countries of the world with regard to access to new information and communication technologies and to the production of the corresponding resources; adapting ICT to national, regional and local needs and securing technical, educational, management and institutional systems to sustain it; facilitating, through international co-operation, the identification of the objectives and interests of all countries, particularly the developing countries, equitable access and the strengthening of infrastructures in this field and the dissemination of such technology throughout society;

Strengthening higher education management and financing

The management and financing of higher education require the **development of appropriate planning and policy-analysis capacities** and strategies, based on partnerships established between higher education institutions and state and national planning and co-ordination bodies, so as to secure appropriately streamlined management and the cost-effective use of resources.

Financing of higher education as a public service

The funding of higher education requires both public and private resources. The diversification of funding sources reflects the support that society provides to higher education and must be further strengthened to ensure the development of higher education, increase its efficiency and maintain its quality and relevance. (b) Society as a whole must support education at all levels, including higher education, given its role in promoting sustainable economic, social and cultural development. **Mobilization for this purpose depends on public awareness and involvement of the public and private sectors** of the economy, parliaments, the media, governmental and non-governmental organizations, students as well as institutions, families and all the social actors involved with higher education.

Sharing knowledge and know-how across borders and continents

The practice of multilingualism, faculty and student exchange programmes and institutional linkage to promote intellectual and scientific co-operation should be an

integral part of all higher education systems. The principles of international co-operation based on solidarity, recognition and mutual support, true partnership that equitably serves the interests of the partners and the value of sharing knowledge and know-how across borders should govern relationships among higher education institutions in both developed and developing countries and should benefit the least developed countries in particular. Consideration should be given to the need for safeguarding higher education institutional capacities in regions suffering from conflict or natural disasters. Consequently, an international dimension should permeate the curriculum, and the teaching and learning processes.

From 'brain drain' to 'brain gain'

The 'brain drain' has yet to be stemmed, since it continues to deprive the developing countries and those in transition, of the high-level expertise necessary to accelerate their socio-economic progress. International co-operation schemes should be based on long-term partnerships between institutions in the South and the North, and also promote South-South co-operation. Priority should be given to training programmes in the developing countries, in centres of excellence forming regional and international networks, with short periods of specialized and intensive study abroad.

Partnership and alliances

Partnership and alliances amongst stakeholders - national and institutional policy-makers, teaching and **related** staff, researchers and students, and administrative and technical personnel in institutions of higher education, the world of work, community groups - is a powerful force in managing change. Also, non-governmental organizations are key actors in this process. Henceforth, **partnership, based on common interest, mutual respect and credibility, should be a prime matrix for renewal in higher education.**

At the same time it can also be acknowledged that monitoring agencies have been very instrumental in spurring structural change and improvement within institutions of national higher education .This trend is based on development of strong internal systems of education and self-assessment. (2) It relates to an institution's overall mission has served a helpful role in shaping educationally useful innovation. The emphasis they place on developing good evidence has supported better decisions and better planning for new higher education challenges and programs.

To understand the full picture for research evaluation, it is necessary to look at a range of governmental roles in higher education development program. Government is responsible for the financial support of a large portion of the nation's higher education centers especially those carried on by universities. It is responsible too for the great majority of the higher education grants and loans that support national level higher education. Notably, however despite this expansion of the central role, agencies have come to play in supporting the higher education programs while reserving significant oversight responsibilities to the governmental agencies itself.(3)

The monitoring and evaluation role of government is technically a narrow one, which begins with the necessity that the government must determine whether a higher education institution is eligible to participate in national higher education programs especially development of higher education and if they can achieve the targets.

In an indirect process for determining the eligibility of research institutions to participate in state development higher education programs it has directed that institutions are eligible for participation if they meet two fundamental conditions: (15)

> 1-Be able to evaluate ,monitor, analyze and predict fundamental changes in science and technology in order to keep abreast of the global fundamental changes in science and technology.
>
> 2-Be able to develop priorities plan to organize technological activities of the country to reengineer nationwide development of science and technology and to provide a sustainable structure for research development program. Some observer believe that this monitoring role of the states is gradually expanding To understand another dimension of monitoring and evaluation role and it's impact it is necessary to look within higher education to the varied internal processes that support quality assurance and over time the maintenance and improvement of higher education quality.

Increasingly too it has become normal practice for most state universities and research centers to employ strategic management procedures: identifying priorities , planning carefully to promote those priorities, monitoring operations more closely and establishing various benchmarks and indicators for their own use. This increased self security extends not only to administration but also to research programs and is conducted wholly apart from monitoring.(7) It is necessary to consider that public and private higher education centers have a significant role in innovation cycle of developing countries.(25) Application of new public management paradigm as a comprehensive trend is a systematic approach for transferring from the hierocracy system to a flexible market based structure to achieve efficiency and effectiveness in the higher education development program.

In this process there is a consideration on the education management instead of education career and the necessity of education functional evaluation and also distribution of responsibilities.(18)

The need for evaluation

The implementation of an evaluation and monitoring plan thus entails a wide area of public and private educational activities. A systematic method evaluation of education both short term and long term is an essential means of plan implementation. Evaluating the national higher education system for developing strategic priorities towards science, research and technology emphasizing on decentralization and independence of universities and research centers in terms of administrative, financial, employment and

organizational affairs .It also devising a comprehensive assessment system for research and technological affairs in national level for improving information technology through supervision of higher education programs for promoting the role of scientific associations and higher education organizations through their involvement in the decision-makings and supervision processes and also planning to boost the share of public and private research in the GDP and the state budget.(6) In this process supporting the implementation of state-run research projects by universities and research centers as a means to diversify their financial resources and also encourage faculty members and students(graduate and undergraduate) to play more effective parts in national higher education activities are a strategic career.(9)

Operational Aspects

This paper reviews the evaluation and monitoring and also applied experiences in the national development research program in some detail. It emphasizes the choices made by monitoring and evaluation agencies at different times as how they would conduct evaluations and what standards they would use.This issues and circumstances surrounding the initial development of evaluation and monitoring and major changes in procedure and standards, respectively. Also attention is given to some of the challenges that presently are posing for evaluation procedures as growing complexity, globalization and advances in instructional uses of electronic technology allow new forms of research provision to emerge.(17) The exiting policies need to be re-examined, and new policies developed. While research innovations must be recognized, it is also true that monitoring agencies have greatly assisted their career. In this process monitoring agencies serve as a public brain system to advocate changes that will improve research practice.(20) For national research development program monitoring and evaluation agencies need necessary process of innovation and ability of response to changing circumstances to move forward in a national oriented way. These centers may experiment with new approaches but must submit their plans to an outside review by other public or nonpublic evaluation agencies. The recommended items for monitoring should be assessed alongside an organization's role for national project, including whether they are fulfilling the responsibilities including monitoring commercial research.

Conclusion

Based on the state national development program a large proportion of resources are devoting to the higher education section and it could be served best by improving the efficiency of the exiting evaluating system. The second set of categories can be alleviated by a major change in national development objectives which would give very high priority to a higher education development program of rural transformation. It emphasizes the choices made by monitoring and evaluation agencies at different times as how they would conduct evaluations and what standards they would use. This issues and circumstances are surrounding the initial development of evaluation and monitoring and major changes in procedure and standards. Also attention is given to some of the challenges that presently are posing for evaluation procedures as growing complexity,

globalization and advances in instructional uses of electronic technology allow new forms of provision to emerge.

The exiting policies need to be re-examined, and new policies developed. While research innovations must be recognized, it is also true that monitoring agencies have greatly assisted their career. In this process monitoring agencies serve as a public brain system to advocate changes that will improve research practice. For national research development program monitoring and evaluation agencies need necessary process of innovation and ability of response to changing circumstances to move forward in a national oriented way. These centers may experiment with new approaches but must submit their plans to an outside review by other public or nonpublic evaluation agencies. The recommended items for monitoring should be assessed alongside an organization's role for national project, including whether they are fulfilling the responsibilities including monitoring commercial research. By such methods, monitoring and evaluation agencies not only guide the development of innovative practices but they also serve to lend credibility to emerging forms of higher education innovation. They need to set certain terms of good practice and encourage certain types of practices, while other practices are discouraged or banned. This represents a soft approach.

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III – Best Practices of Innovations and Change in Higher Education

8. Best Practices of Innovations Change in Higher Education[15]

Introduction

Technology is a force that has changed many aspects of the way we live. If one was to compare such fields as medicine, tourism, travel, business, law,banking, engineering and architecture, the impact of ICT across the past two or three decades has been enormous. The way these fields operate today is vastly different from the ways they operated in the past. But when one looks at education, there seems to have been an uncanny lack of influence and far less change than other fields have experienced. There have been a number of factors impeding the acceptance of ICT in education across all sectors. These have included such factors as a lack of funding to support the purchase of the technology, a lack of training among established teaching practitioners, a lack of motivation and need among teachers to adopt ICT as teaching tools . But in recent times, factors have emerged which have strengthened and encouraged moves to adopt ICTs into classrooms and learning settings. These have included a growing need to explore efficiencies in terms of program delivery, the opportunities for flexible delivery provided by ICTs, the capacity of technology to provide support for customized educational programs to meet the needs of individual learners and the growing use of the Internet as tools for information access and communication.

As we move into the 21st century, these factors and many others are bringing strong forces to bear on the adoption of technology in education and contemporary trends suggest we will soon see large scale changes in the way education is planned and delivered . This paper seeks to explore the likely changes we will see in education that acts as a powerful agent to change many of the educational practices to which we have become accustomed. In particular, the paper will explore the impact both current and emerging information and communication technologies will be likely to have in coming years on what is learned, when and where learning will take place and how the learning will occur.

Need for Innovation in Higher Education

New technologies, and especially social computing, provide new opportunities for education and training, as they enhance learning and teaching, and facilitate collaboration, innovation and creativity for individuals and organizations. The benefits of deploying social computing and ICT for learning depend on the learning approach used,

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emphasizing the role and the skills of the teacher and the need for supportive settings for both learners and teachers.

One of the most important roles of institutions of higher education is to serve as well springs of innovation and creativity. But if we expect institutions to play this important role in society and the economy, then mechanisms are needed to evaluate the extent to which they are achieving this purpose. The traditional standard-based view of teaching has been criticized as stifling innovation, but the lack of incentive to innovate remains even with the more modern and liberal fitness-for-purpose based approach. While the fitness-for-purpose approach accommodates more variety in approaches to higher education, it still does not directly measure and reward innovation and creativity in higher education. A mechanism is needed to assess the extent to which the environment at an institution fosters innovation. This paper outlines key initiatives in new knowledge creation and innovation, shows how they have been implemented and mapped to an academic setting.

For this purpose, two best practices chosen for this research study are as mentioned below:

1. **Using ICT i.e. Information and Communication Technology** to bring the sea-change in Higher Education system.
2. **Mentoring sessions by teachers for better Faculty-Student Relationship**

Objective

a. To improve Higher Education system with introducing innovative methods with the support of ICT, like attendance, work-diary, conducting tests, Internal assessment marks, messages to parents on mobile, course & subject details, etc.

b. To improve the teaching –Learning standards in Higher Education by changing the roles and responsibilities of teachers into the Mentors.

c. To create an overall healthy teaching- learning centered environment with the help of good higher administrative authorities.

Hypothesis

a. The present study has the prior hypothesis, that ICT is the global and universal aspect which can bring about great changes in the present Higher Education System, Institutional roles, and the student-generation to make them hold the reins of leadership to create a better world.

b. The Mentoring System is the best way to change and mould the students to be the best of their capabilities. This can also develop a healthy relationship between the teacher – student.

RESEARCH DESIGN

a. Methodology:

The study is basically **empirical** and **exploratory** both. An attempt is made in this paper to identify the variables of ICT, which are critical and at the same time very popular among the masses. The study can be further regarded as exploratory as it would explore various new trends in **Higher Education for innovations and changes with ICT which can be the ideal examples for future.**

b. Primary & Secondary Data: The Primary and secondary data both have been used to carry out this research. The Primary data have been collected by collecting the Cases

1) Innovation and Creativity through ICT

Introduction of Integrated Mobile Learning solution into the current system was very simple. This application provides a one stop solution for various activities ranging from attendance monitoring to internal assessments, tests and result announcements to career guidance. This innovative practice has attracted widespread attraction and acceptance in academic cracks and media coverage at parents for monitoring their wards progress.

This Application also saves stationary as no registers are used to take attendance and also the records are preserved on day to day basis which can be used and stored at any point of time. The software installed in the mobile phones also has the capacity to save the entire course details pertaining to each course / stream, semester, subjects, separately so as to help the teacher click on the subject he or she is taking during that hour. The periods are also installed in the mobiles with an hour duration to specify the beginning and ending of one class indicating the exact time for example 08:30, 09:30, 10:30a.m., etc. Lesson plans are also included in it. The tests of all the subjects for all the semesters are also conducted with the help of this sophisticated and commonly used device as the teachers have been trained and are only required to give the question papers in CD format. Hence this practice is in itself bench mark in the country of its own kind and in future may give birth to many more such technological experiments to bring

This innovative Mobile Technology is **invented and pioneered by Seshadripuram First Grade College an esteemed educational institution of the Seshadripuram Group of institutions in Bangalore, Karnataka**. In the age where mobile phones are banned in educational institutions completely**, Seshadripuram First Grade College** has been a **pioneer in inventing** the latest trend to use this **device (mobile),** with the help of the installed software in it to help the faculties reduce their workload of taking attendance, consolidating it each month end, taking tests, doing corrections, maintaining records of tests, its marks ,not only this it also saves tons of stationary. Also the parents are regularly updated of their wards presence or absence with proof as the data is available. This case study is the best precedence of proper use of I.C.T. and technology for normal routine work that the teachers do in their institutions.

This is something which is the **very first of its kinds to happen in India or even in the entire world. This technology is named as ACTS, (Attendance and Course Tracking System/ Interactive Platform on mobile).** SFGC has put into service the ubiquitous mobile technology to record, and track students attendance and to test their competence internally ACTS works on mobile-based registration software for students information, individual students account with login and password, login and password for Principal to access / track student information regularly, SMS, - based automated attendance making and attendance registers.

Changes in Students roles with ICT:

A shift from		**to**
Passive recipient of information		active participant in the learning process
Reproducing knowledge		producing knowledge
Learning as solitary activity		learning collaboratively with others.

Changes In Teachers Role to Create Better Students with ICT:

- **Classroom Management is well taken care off as things are dealt with technology**

1. Attendance & Internal Marks: Teachers take attendance & enter internal marks on the device and submit for real time consolidation.

2. Reports: Teachers can pull real-time report of a student anytime, anywhere. Consolidated reports can be obtained anytime, anywhere

Benefits of Enabling interactive learning:

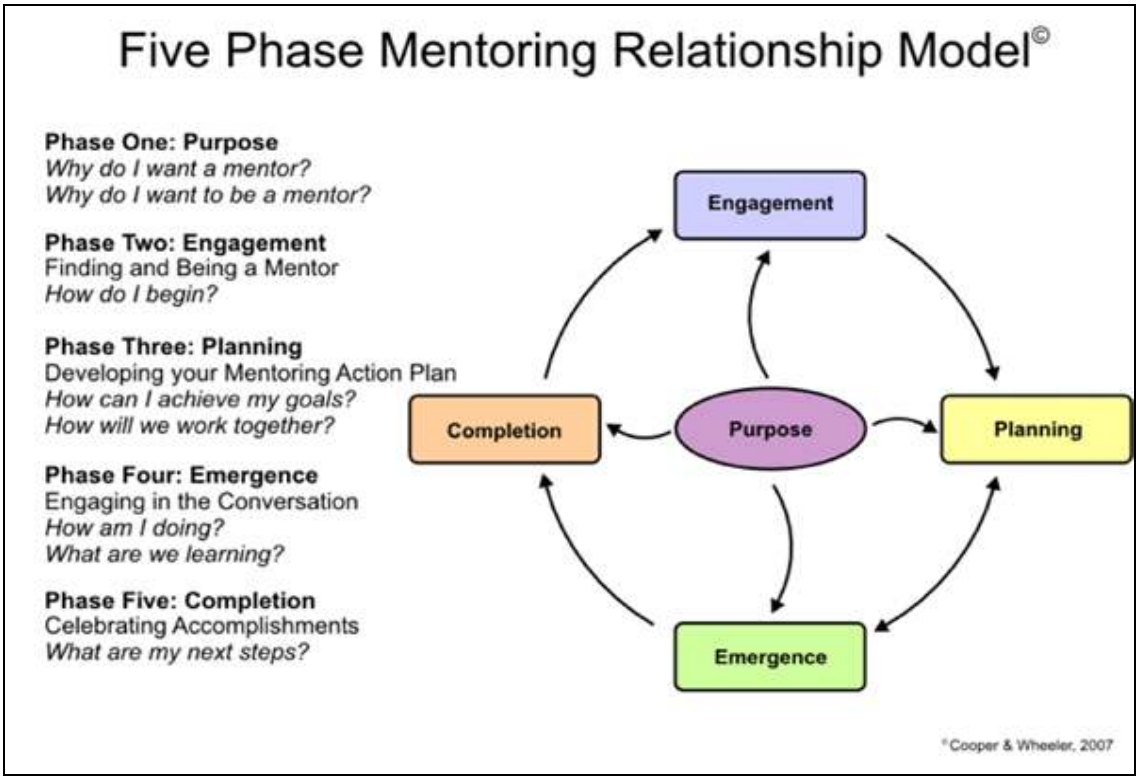
- **Lesson Plan:** Teachers can upload the lesson plan for the current semester in their mobiles, which helps them to concentrate more on teaching effectively.
- **Lecture Status:** the lecture status is readily available on the teachers personal mobiles as well as it is recorded to have the consolidated attendance of the class.
- **Work Diary:** Technology is so advanced in IPOMO that teachers can prepare the work diary in it, which again saves time, is a very safe documentation for future records, save stationary too.

- **Assignments announcement:** Teachers can give assignments through IPOMO, which saves time and also students get the message wherever they are, hence no excuses are entertained later on that they were absent.
- **Institutional Messages and notification:** IPOMO helps the institutional messages to be sent to the faculties with great ease and very quickly to entire staff and students, about any updates, meetings, seminars, etc.
- **Student-Feedback:** Even students are asked to give feedback on their teaching faculty and on other issues anonymously, so that things are not biased, which is possible only because of this great technology pioneered by SFGC.
- **Dash Board:** It displays the status of classes going on in the campus and the classes let off due to any unavoidable circumstances. It also shows the details of various events happening in the college to everyone.

2) MENTORING by TEACHERS at SFGC, Yelahanka, Bangalore.

"Mentoring is to support and encourage people to manage their own learning in order that they may maximize their potential, develop their skills, improve their performance and become the person they want to be." Eric Par sloe, The Oxford School of Coaching & Mentoring

Objectives of Mentoring :



2. **MENTORING in SFGC:**

Sehadripuram First Grade College, Yelahanka,Bangalore, has adopted yet another innovative practice of Mentoring done by the various teachers, for all classes. All students have a particular Mentor for their entire three years in the college that they spend. To each Mentor some 40 students are allotted. The Mentors job is to closely watch the students' performance, record it every semester and to have a track of their weaknesses and talents. Also, the mentor conducts regularly meetings with students in every month so as to know them, help them, and make them grow in a healthy environment. Each mentor is a role-model and a friend, philosopher and guide to his\her students.

- **Mentors mend the ways of their students if required. Also, they report to the higher authority about the wellbeing of their lot, regularly.**
- **Mentors also conduct parent-teacher meeting regularly, twice a semester to update the parents of their wards growth.**
- **Mentors also deal with personal problems of the students along with the class-teachers, and Principal if required.**
- **Mentors maintain the profile of students for 3 years.**
- **Mentors and mentee report is submitted to the Internal quality assurance cell,(IQAC)**
- **Mentor's effective mentoring changes the students behavior and performance immensely.**
- **Mentors also solve the problems that parents have with their wards & vice-versa.**

Only when students feel engaged both socially and academically can schools and colleges and teachers lay the groundwork to motivate achievement, which is mentioned in the below graph-1

3. **FINDINGS:**

Mentoring is a powerful personal development and empowerment tool. It is an effective way of helping people to progress in their careers and is becoming increasing popular as its potential is realized. It is a partnership between two people (mentor and mentee) normally working in a similar field or sharing similar experiences. It is a helpful relationship based upon mutual trust and respect.

- Spotlight on Student Engagement, Motivation, and Achievements.

- A mentor helps the mentee to believe in herself and boost her confidence. A mentor should ask questions and challenge, while providing guidance and encouragement.

- Mentoring allows the mentee to explore new ideas in confidence. It is a chance to look more closely at yourself, your issues, opportunities and what you want in life.

- Mentoring is about becoming more self aware, taking responsibility for your life and directing your life in the direction you decide, rather than leaving it to chance.

CONCLUSION OF THIS STUDY:

Innovation in teaching and learning is most likely to take place when:

a. the innovator feels a degree of security within an understood community or cultural context, recognizes the need for change and has encouragement or support from the head of department, dean or other person in authority;

b. the institution has a policy establishing parity between research and teaching and learning, including for purposes of promotion, and the policy is reflected in practice;

c. colleagues and people in authority show an interest in disseminating the outcomes of innovation;

d. Resources are available through the department, an innovations fund or similar fund, and an educational development or learning support unit.

"Our country's dominant higher education policies have focused on expanding access for more than half a century - allowing more students to afford higher education. Yet changing circumstances mandate that we shift the focus of higher education policy away from how to enable more students to afford higher education to how we can make a quality postsecondary education affordable. The challenge before the country also mandates a new definition of quality from the perspective of students - so that the education is valuable to them and that through it they improve their lives and thus improve the country's fortunes, too. And if a postsecondary education is fundamentally affordable - meaning lower in cost, not just price - this will also answer the question of how to extend access by enabling students to afford a higher education."

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9. Best Practices of Innovations and Changes in Higher Education[16]

Introduction

Educational institutions, like all other organisations, require constant monitoring to identify areas for potential improvement. However, educational reforms are often not well implemented. This results in massive wastage of finances, human resources, and lost potential.

Change may be described as the adoption of an innovation (Carlopio 1998, 2), where the ultimate goal is to improve outcomes through an alteration of practices. There are a number of differing strategies for implementing these changes, with the success of implementation being highly variable.

Commercial enterprises, non-profit organisations, service industries, government instrumentalities and educational institutions all undergo change.

Educational Structures

The structural framework of education is hierarchical in nature. Each of these strata are comprised of individuals with differing goals, interests and perspectives. This results in groups that possess different cultures, structures, practices, policies and goals, which ultimately determine the success or otherwise of the implementation of innovations.

The Need for Change

Both internal and external forces (Yee, 1998) drive the need for change. In educational terms, this may be interpreted as the need to update practices in keeping with the findings of international research, and to continually conform to national trends.

Internal to the school are the pressures brought to bear by curricular reform. Alterations in staff-student relationships from teacher-centred to student-centred create the need for modification of teaching practices, and policies and procedures to support more meaningful educational experiences.

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Educational Paradigms

Much publicity in the media has been generated in the last few years regarding the perceived reduction in standards for functional literacy (reading and writing), the educational perspective requires a shift in paradigm to an information literacy focus.To achieve this goal in a meaningful way, educational institutions themselves must restructure the framework of their organisation to form learning communities

The Change Process

Change management is the core activity in realising organisational goals, whilst implementation is the practical or physical process of delivering an innovation. People and relationships are the majory components to successful implementation, and support mechanisms are required to achieve an improvement in practices and procedures.

The identification of areas for improvement is the initial stage of the change process, followed by the generation of possible solutions to address issues so identified. Activity in these areas is independent of position in the organisation. These first two stages of the change process are implementation of proposed innovations, the third stage of the change process, is the most complex and difficult to achieve. The implementation of change is not linear (Carlopio 1998, 5), and must progress through various stages over time, with commitment from stakeholders that is achieved through shared decision-making, common vision, collaboration and the establishment of support structures.It is self evident that the implementation stage of change must be followed by evaluation and reassessment, possibly with further amendments needed as issues of concern become identified.

Levels of Changes

Systemic

All organisations, including educational systems, have concerns that are addressed by attempts at organisational renewal. Productivity, cost effectiveness, capital utilisation, market orientation, organisational renewal and viability are primary of importance for all organisations.

Whole School

As individual schools have unique cultures, practices and traditions, it is self-evident that an individual tailoring that is context-specific is required. The leadership style of the administrator will to a large extent determine the types of change that are likely to occur, together with the ultimate success of their implementation and subsequent improvement to learning outcomes.

Conclusion

Paradoxically, the very same factors that produce the need for change present barriers for the achievement of that change. School culture, stake holders perceptions, societal effects, organisational structure and the nature of change itself are together creating both the need for, and method of, continuous improvement to education and its outcomes.

Whilst Fullan (1993, 46) notes that societal problems beyond the control of schools frequently prevent educational reform, these cannot be wholly held responsible for the failure of educational reform. Lack of supporting structures, a deficit in the consultative process, an inadequacy in holistic approach, and the absence of ongoing evaluation and amendment contribute greatly to the impairment of implementing innovative practices.

Present practices are inadequate to meet changes in work, knowledge, and citizenship (Schuyler, 1997) while serving a greater number of students with diverse backgrounds and educational objectives. A paradigm shift from instruction to learning is required to adequately serve the clients of educational institutions, which in turn requires an alteration in procedures for improved outcomes. Educational practices, and the structures that support them, must change in order to ensure that the citizens of the future - our school children of the present - can exist and grow in a world characterized by change, unpredictability and enterprise.

10. Best Practices of Innovations and Change in Higher Education w.r. to Commerce and Management[17]

"The ultimate aim of NAAC Accreditation should be not Merely keep up our standards, not merely to give useful and right education to our student but also to achieve standard of such Excellence that we become Leaders in the World "

P.M.Kavadia. – NAAC News

Introduction

Education is a Process of Accepting the Change and Innovation is a Thinking and Creativity in Practice. System of Indian Higher gives a understanding to the Students about the Social Phenomenon and economic aspect which is needful the development. Development of Personality is basically Developments up the Knowledge Ability and Evaluation Skills of Students Today, in global Scenario Tradition Teaching Methods and Learning Techniques we have to change for better performance and for development of

[17] Dr. Vasant Baburao Kodag, Principal, G.A.College of Commerce, Sangli. Maharashtra.

Competitiveness in Students. There is a need to create a Confidence in Students about their inner ability. Only Classroom and books Knowledge is not sufficient to get the success in the life. Every teacher as well as College & Universities should have to maintain the Quality in Higher Education.

In Student's development they have to give Action Plan, thinking Ability and Self decision power which is essential for personality development. Case Study, field work, Analytical Study and Project work will gives a expositive to the Students for Self Development. Knowledge Learns to change and Innovative Practices in Higher Education shows a highways to the students for their better change in future and Personality Development. Education is a tool of Social Change and Social Transformation. Education gives a platform for Social Development. India will become a powerful nation in world in 2020-2025 with only because of Education Youth.

Need of Modern Management in Commerce Education

Commerce Education has played important role in Indian Industry and Indian Economy. There are number of challenges before the Commerce Education. Nation Income and Employment opportunities are depends upon the Quality Commerce Education System. Learning is a part and parcel of any systematic knowledge. Teaching and learning are important two sides of commerce education system. Indian Higher Education system is second larges system in the world today.

Today there are 545 universities and 27450 colleges in India imparting Higher Education all over the country. Quality of Higher Education depends upon the role of Teachers and students participation in learning process. Learning process is also depends upon the teaching aids, Library facilities, Academic activities such as classroom seminar, field work as well as study tours and other non-academic activities of the college.

The aim of Indian Higher Education is to acquire knowledge and develop minds of students and skill, which will be mould the students as responsible Citizens. Today our challenge not to give education to the students but as per LPG policy it has been necessary to train to our students in the manner of future needs.

Indian Economy accepted LPG Policy from 1995. So, there are various changes in Commerce, Management, Marketing and Industry. Today there is a need to change our Commerce Education System. At present there poor attendance of the student as well as there is a lack of field work & practical knowledge. So I hope that there is a need to adopt Modern Management Techniques in Teaching Learning process which will be very necessary & effective for commerce education. Activity based Commerce Education & Education with industrial linkages is essential today.

Use of New Teachings Aids, Radio, Films, Presentation of Project Work, Readers Clubs, and Class Room Discussion are the Modern Management Techniques for Commerce Education.

Methodology

This research paper is depending upon primary and Secondary Data. As our college is exclusively Commerce College in Shivaji University, Kolhapur. We have collected primary necessary data regarding effective Best Practices and Innovative learning from this college only. Interview and observation technique is used for Primary Data Collection.

I) Best Practices of Innovations and Change

1) **Promoting Students Participation is Learning**:
The Main aim of Higher Education should be to make the student more creative participative and Quality conscious due to efforts of NAAC accreditation many institutions took more initiatives for student Promotional Activities Learning is a two may process in which student's role and participants gives more benefits.

2) **Activity Based Learning**:
Classroom teaching is the old and Tradition method for Learning. Now we have to change our teaching methods and have to improve our teaching skills with the following activities.

- Classroom Seminar
- Teaching the Junior Students by Senior Students.
- Formation of core groups of students.
- Field work and students Tours.
- Industrial Linkages in Learning Process.
- Success stories and Guest Lectures.
- VDO Films and Discussions.
- Project Work.
- Formation of Reader Club.
- Networking of Support Services.
- Remedial Teaching
- Non-academic Activities.

"Invention when exploited commercially is known as innovation. Research conducted in colleges for UG, PG and Ph.D. often results in publication. This is good, but better it is if exploited commercially. Unfortunately these remain on shelf in library." -B.M.Naik (University New Vol-49-No-37-Sept.2011)

3) Mains Problems in the Learning Process:

"Maintenance of quality standards of an institution assumes greater significance as deterioration of the same could have adverse affect on a variety of stake-holders like students, society and finally the nation as a whole, understandably the deterioration of standards or quality could be checked to great extent if an institution at a nascent stage undertakes a strict regime of quality health checkups at regular intervals of time." -Prof. H.A.Rangnath, Director NAAC

Though there is a remarkable progress in terms of growth in College and Universities in India but this pace of expansion is still not sufficient as compare to the size of the population and area of country. Our gross enrolment ratio is about 11% to 11.5% which is very low as compare to developed countries. Presently India is spending about four percent of the GDP on education, out of which less than one percent is spent on higher education. It is too small for a country like India, having population more than 100 crore. There is need of hours to develop innovative practices for Quality Assurance and Quality Enhancement in Indian Higher Education.

4) **Innovation and Change in Education System:-**

Up to 27th March 2011 there are 161 Universities and 4371 Colleges accredited by the NAAC- Bangalore. It is proud think that Maharashtra state is doing accreditation of 20 Universities and 981Colleges. It shows the awareness about accepting the new challenges for quality higher education. I hope, the quality of higher education is the challenges before Teachers and Management with following:

1. Need is change in current curricula and suggestions for reforms.
2. A vision for Globalization.
3. Start field work and practical education system for employment.
4. Reforms in examination.
5. Use of information Technology in Teaching.

Scheme for Active Participation of Students

A) Participation in College Activities-
   1. Regular attendance
   2. Reading room facilities
   3. Debate club
   4. Classroom seminars
   5. Survey and presentation
   6. Group discussion
   7. Students counseling

B) Participation in Cultural Activities-
   1. Youth Festival
   2. Other Competitions
   3. Local Festivals

C) Participation in NSS and NCC Activities
D) Students Camps and Meetings
E) Internal Evaluation System
F) Sports Participation

Today information technology plays very important role in learning system. Traditional teaching Method is become out of use today, So we have to accept new activity best education system for development of students knowledge and skill. E-Commerce, E -Business & Internet system are become very important in learning process. There are various problems teaching and learning process.

The Main problems are as under :

- Poor Attendance of students in Classroom
- Lack of Industrial Linkage
- Lack of Field work and Practical Work.
- Traditional Teaching Methods.
- Evaluation and Examination System.
- Quality Gaps in Research
- Lack of Remedial Coaching.

Conclusion

Quality of Higher Education means the quality of the Students Learning. In Commerce Education we try to give the knowledge about Business Management, Industrial Planning as well as Accounting Principles and Standard practices.

If you give teach our students with various activities that Learning is become powerful and also useful for the students to get employments and for the development their own business. Activity based Commerce education gives more ability to the students in terms of knowledge perception analytical skill, and evaluation skill.

In the new economy the knowledge is the power. A student creativity is mostly depends upon his experience and subject knowledge which is relating to his effective learning. I hope that our main aim should be for quality education through the Activity based Education system.

Here is need to change the educational system and it should be linked with industrial requirement. New subjects should be introduce to commerce degree coerce as like Hotel

Management, Tourism, Fashion Technology and E-Business, Time Management, Export Management and Internet System.

Higher education is the process of accepting change. It is the proper time to enhance the quality with the help of stakeholders particularly with students and teachers. These are two wheels of quality assurance and quality enhancement. There should be academic audit by University by the Government authorities. The teachers should follow the new and modern techniques.

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11. University Innovation and Technology Transfer Foundation[18]

Hon'ble Prime Minister's anguish at the Indian Science Congress at Bhuvaneshwar on Jan. 3, 2011 was a candid expression of India's relative declining position in world of Science over the last few decades. We have to muster suitable planning and financial support to catch up again. There is no doubt that Indian brains are one of the best in the world.

There is need of establishing a supervising cum regulatory body like 'University Innovative & Technology Transfer Foundation' to accelerate the pace of Fundamental and Applied research by augmenting financial support to atleast ten times than what is spent at present. Let the local industries & corporate be roped in & academia-industry interaction be enhanced for inclusive goals. There is need of synergizing Government Labs, IITs/IIMs & Universities for teaching of higher education & for research & extension these together with industries. Let Planning Commission of India , MHRD, UGC, AICTE, CSIR alongwith FICCI and CII come together to form such a supervising cum regulatory body for this task in the form of ' University Innovation & Technology Transfer Foundation' with an initial seed money of about Rs.1.00 billion.

The research in Govt. Labs, Universities & Colleges, and Institutes of Eminence & Advanced Research Centers is at its lowest ebb in the country. There is need to put in more efforts & money in Universities & Colleges. There is virtually no academia-industry interaction. The University Grants Commission & Department of Science Technology have time to time tried to augment this interaction by giving major & minor research projects, grants for holding national/international seminars & travels, fellowships etc; but the activity has not gained the desired momentum. We should plan and devise right efforts again & again to tap the vast reservoir for creative and innovative purposes.

The academia-industry interaction can find boost by establishing Research Parks, Innovative Centers, Patent Centers & Intellectual Property Right Centres at or around campuses of the Universities & Colleges. The local industry & corporate will have to be proactive for this. Of course, the proposed 'University Innovation & Technology Transfer Foundation' will help them technically & financially. The University/College teachers & researchers should also find incentives in terms of their Career Advancement Schemes. The Vice-Chancellors & Executive Heads of such institutions should be asked to facilitate establish such facilities at/around their Campuses with the help of industries and concerned Government Departments. The National Assessment and Accreditation Council (NAAC), National Board of Accreditation (NBA), Accreditation Board (AB) &

[18] Dr. K.K. Sharma, Principal, M.S. College, Saharanpur-247001, Uttar Pradesh.

other accrediting agencies be instructed to consider special grading for such institutions involved in academia-industry interaction. The comprehensive goal of trinity in higher education – teaching, research and extension – then will be truly realized, the research will find boost and the society will also be benefited.

12. Best Practices of Innovations and Change in Higher Education[19]

Introduction

India, known as the home of some of the oldest formal universities in the world, has a long and reputable history in the filed of higher education. In modern times, despite serious handicaps of means and resources, the country has built up a higher education system which is the third largest in the world. With over 200 universities and 100 deemed-to-be universities, the system has created a vast body of men and women equipped with a high order of scientific and technological capabilities, robust humanist and philosophical thought, and creativity. However, the emerging needs and expectations have added new dimensions and challenges to the higher education system.

Meaning of Innovations

Innovation is the conversion of new knowledge in to new products and services to create value and increasing productivity. In simple terms innovation is nothing but introducing something new that makes the system better than the earlier. Innovations are the application of intellectual acumen of the people involved in innovation.

Need of reforms and innovations in higher education system

The present higher education system is characterized by new type of students, new technologies, newer aspirations and new expectations that mark the knowledge era. The change in working patterns are evident in almost all sectors. All this transformation took place at such a rapid pace that the knowledge institutions are still in the process of absorbing the shockwaves created by the technology. Albert Einstein's words quoted above posit a message for all educators that – " I never teach my pupils; I only attempt to provide the conditions in which they can learn". Many of us have grown up with the chalk and blackboard form of pedagogy and are most comfortable teaching, in the same

[19] Dr. Rashmi Mehta, (Principal), Smt. C.P. Choksi Arts & Shree P.L. Choksi commerce College – Veraval. (Somnath), Dist. Junagadh, Gujarat.

way. But this is the best way to engage students or provide a learning environment most suited to learners.

E-learning

Laurillard (2002) said, " There is no progress…….. in how we teach, despite what might be possible with the new technology i.e. e – learning." 'E – learning is a relatively new tool with the potential to radically improve participation and achievement rates in education. Benefits include; the ability to customise learning to the needs of an individual and the flexibility to allow the an individual to learn at their own pace, in their own time and from a physical location that suits them best. Quality gaps are evidently increasing I higher education both, in terms of academic standards and as well as infrastructure facilities. The availability of qualified permanent staff, quality reference books, conducive research culture. Good student support system and efficient governace and administrative systems are still wanting in Indian higher education system.

The country today needs a combination of technology, innovation, leadership and inspired workforce to reap benefits of knowledge society. The famous philosopher francis bacon said, " Knowledge is power" which is the secret of success. Students & teachers must develop their skills in technology and its varied applications to contribute significantly to transformation of Indian.

Learning communities

Learning communities comprise curricular models that link courses or course work to reinforce their curricular connections, maximize opportunities for students to collaborate with each other and their instructors, and provide interpersonal support. Although often designed for first-year students, learning communities now appear throughout the curriculum. They are designed to build communities of learners, and in many cases, provide the structure to promote interdisciplinary study and integration.

Inter-disciplinarily

Interdisciplinary studies, which are considered a major trend in teaching and research, have grown exponentially since 1990. Two widespread innovations are first-year interdisciplinary seminars and courses based on themes or problems, many of which are team-taught. Courses in new interdisciplinary fields are flourishing (e.g., neuroscience, bioengineering) as are courses in multiculturalism, often spurred by diversity requirements. Courses that apply ethics and environmentalism to professional areas, such as undergraduate nursing and engineering, reflect accreditation mandates. In addition, faculty across the disciplines use innovative pedagogies and course structures that promote integration and interdisciplinary perspectives, such as academic-service learning, multidisciplinary group work, internships, fieldwork, and study abroad.

Innovative Instructional Methods

Innovative instructional methods are proliferating in higher education and are integral to curricular reform efforts. Supported by research on how students learn, instructional innovations emphasize active and experiential learning (i.e., learning by doing); inquiry, discovery, and problem-based learning; collaborative and cooperative learning in groups; writing to learn; undergraduate research; academic-service learning; and instructional technology. Although lecture and small group discussions are still the dominant instructional methods, active and collaborative learning is now commonplace in higher education. As reported by George D. Kuh in 2001, 90 percent of seniors polled in a national survey indicated that they had participated in group work in class during college.

Read more: http://www.answers.com/topic/higher-education-curriculum-innovations-in-the-undergraduate-curriculum#ixzz1osxPFrel

Assessment of Student Learning

Widespread efforts to assess student learning are also having an impact on the undergraduate curriculum. While multiple choice tests are still widely used, new evaluation methods provide opportunities to assess and to promote higher-order critical thinking skills and the competencies now valued in higher education. Methods include self-assessments, student portfolios, student journals, case studies, simulations, poster sessions, group projects, and technology-based innovations, among others - all of which reflect the shifts from content to competencies, from fragmentation to integration, and from passive to active modes of learning. Increasingly, assessment results are being used to improve programs and promote the ongoing process of curricular reform.

Read more: http://www.answers.com/topic/higher-education-curriculum-innovations-in-the-undergraduate-curriculum#ixzz1osxyMPwI

i. Making the University community more aware of its strengths, weaknesses, threats and opportunities in an effort to ensure high standards of academic and advisory services particularly teaching, research and professional consultancy;
ii. Taking measures to reduce unit costs in training students in the programmes;
iii. Improving the internal efficiency and management effectiveness through enhanced internal autonomy that was necessary for capacity building in material and human resources at activity centres;
iv. Improving the flow of resources to the University through diversified and marketable programmes and image-building public relations – nationally and internationally;
v. Working, in collaboration with the Government, towards creation of a more flexible legal environment that would enhance and/or improve the University's responsive capacity; and

vi. Working to continually improve the working conditions and environment of staff and students.

(i) Ascertaining whether adequate procedures were in place for safeguarding the quality and quantity of teaching, research and public service;
(ii) Recommending a minimum frequency for compulsory curriculum review at the departmental and faculty/institute levels;
(iii) Checking whether adequate procedures were in place for internal academic evaluations;
(iv) Evaluating adequacy of resources available for delivery of the core academic activities (teaching, research and public service);
(v) Assessing the mode and efficiency of delivery of the various academic programmes in comparison with other universities;
(vi) Studying the distribution of academic workload within and across academic units, adequacy within and across fields/units, and recommending appropriate corrective measures;
(vii) Evaluating the relevance (in the broadest sense) of the academic programmes in relation to national, regional and international needs and trends;
(viii) Establishing the extent to which the current programmes measure up to the proclaimed goals of excellence stipulated in the Corporate Strategic Plan (CSP); making recommendations on these matters as well as on any other aspect.

My answer is that interdisciplinary education succeeds only when it's comprised of very strong discipline-based programs. Both are improved and enhanced through the experience of the other. I call this the dialectic of disciplinarity and interdisciplinarity--the mutual dependence of both sides. Each student must bring depth, expertise and differentiation to the interdisciplinary experience. And for that to happen, design curricula must give students discipline-specific skills and ways of seeing before introducing interdisciplinary projects. The stronger the disciplines, the better the interdisciplinary experience. As Michael Press and Rachel Cooper write in The Design Experience: the Role of Designers in the Twenty-First Century: "the increasingly team-based approach to product development has led to a broadening of roles: individuals are no longer seen as specialists with narrowly defined responsibilities, but as generalists with a particular area of expertise."

It is equally important to design the interdisciplinary studio with considerable care and planning: the least successful interdisciplinary studios come from failing to consider the overall educational experience and the desired product. This is indeed a design problem and should be addressed with the same insight and creativity we would apply to any other design challenge. Based on my experience at Art Center, here are some of the keys to ensuring a successful interdisciplinary studio. First, a balance of aligned and less-aligned disciplines according to the nature of the design brief is critical. By "aligned and less-aligned," I mean those disciplines similar in assumptions and ways of working

("aligned") and those further apart ("less-aligned"). I'll return to this idea later. Second, not all projects are alike, which means that every project team needs to be tailored according to the desired outcomes (both educational process and final product) for the project you're working on. Third, advance planning among faculty and department chairs is essential; this includes imagining scenarios in the studio, anticipating potential problems (such as the ghettoizing of the disciplines), and articulating the shared language that will allow for interdisciplinary dialogue. Fourth, it is imperative to establish a strong commitment to working in collaboration among faculty and students in advance—this does not happen naturally. Without this commitment, you are more likely to fall into turf-based protectionism and unhealthy competitiveness among both students and faculty. Finally, assessment of the collaborative experiment needs to be an ongoing practice of all participants. Waiting until the studio is over to assess its success prevents the opportunity to make creative changes along the way. The interdisciplinary experience is like a living organism, which means you cannot always anticipate what form it will take.

Interestingly, Fleming found that the number of innovations increased when the disciplines involved were more aligned, that is, closer in governing assumptions and creative processes. However, although there were fewer innovations produced in teams comprised of less-aligned disciplines, they were of a higher value and more likely to produce a significant breakthrough. Fleming describes this as "the inverse relationship between the average value of a team's innovations and the similarity or alignment of the disciplines represented on the team." To put it simply, teams with similar disciplines produced more innovations, but of less value, while teams with very different disciplines produced fewer innovations, but of greater value to the company. It follows that to design a team made up of highly differentiated disciplines incurs greater risk but also potentially greater reward: they are more likely to fail, but their successes will be more dramatic. Conversely, a design team comprised of similar disciplines is the safe bet: success is likely, but probably not the breakthrough variety. The main reason for this equation is that less-aligned disciplines may not share enough assumptions or language to interact at all; but if they do, it will produce something radically new. Aligned disciplines speak to each other quite easily, and thus will produce more innovations. But they won't have challenged the boundaries of their disciplines sufficiently to result in breakthrough innovation. It's a question of quantity versus quality, safety versus risk.

After all we the knowledge workers are the steering-holders of this knowledge era.

13. Best Practices of Innovations and Change in Higher Education[20]

Introduction

Higher education is considered to be the key factor in promoting and accelerating the process of national development. The core mission of higher education is to educate, to train, to undertake research and to create human resource. The supremacy of advanced countries like USA is due to the fact that 80% of its productive resources are in the form of human capital. Not only that they create, disseminate and apply knowledge, but also control fundamental and useable knowledge so as to promote national development and to sustain global supremacy. National knowledge commission (NKC), set up in the year 2005 as an advisory body on education to the Prime minister of India, has emphasized the need of transformation of India into vibrant knowledge based society. Thus higher education is considered as a powerful tool to build knowledge and to bring a paradigm shift in the information based society. Access to knowledge can best be achieved through increase in the enrolment in higher education.

As per the data available, the enrolment to higher education in India has risen from 0.7 percent in the year 1950 to about 12.0 percent in the year 2010 but it is still very low as compared to the world's average of 23.2 percent and the average of 54.6 percent for the developed countries.

The scenario, therefore calls for educational institutions to be increased, number of courses to added and new departments to be established. However, in the present era of globalization, the enhancement of the quality of education is the primary concern of every educational institution University Grants Commission has undertaken a number of initiatives for ensuring quality in higher education. The establishment of National Assessment and Accreditation council (NAAC) in 1994 has been the most important step in this direction. The NAAC's methodology is based on improving performance by collaboration or comparison with the practices of the other higher education institutions(HEIs). This has resulted into the development of a database of best practices. NAAC's methodology supports HEIs in the identification and adoption of best practices under each of the seven criteria for assessment formed by NAAC. The present paper is intented to share a few elements of the best practices that may contribute to the efficient functioning of the institutions and enhancement of quality of education

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Mrs. Monika Sharma, Vice- Principal Rajiv Gandhi Memorial College of Education, Kathua

Best Practices in Teaching and Learning

(a) Set the Goals and objectives

At the beginning of the session, the faculty should set the objectives to be achieved and provide the relevant and structured activities by taking into account both the student's need and the demand of the subject matter. By predetermining the outcome of a course, the performance expectations should be communicated to the learners to achieve the set goal. This exercise shall go a long way in motivating the students to achieve a well defined goal with regard to their learning experiences.

(b) Curriculum Transaction

Teachers invariably use lecture as the main method of teaching the theory portion of the courses. However the monologue form of the lecture may be replaced by a dialogue form, which changes lecture into lecture-cum-participatory discussion. This will provide an opportunity to the students to engage in independent and critical thinking. Research has shown that passive listening is rather monotonous. It is therefore worthwhile to pause after every 10-15 minutes of teaching and ask the students probing and thought provoking questions, involving them in discussion. Use of paradoxes can make the lectures very interesting and effective. Teaching through discussion leads to better retention and application of knowledge Humorous examples and stories are some of the best ways of helping students learn

(c) Reflective Practice

In 1987, Donald Schon introduced the concept of reflective practice as an approach which promotes autonomous learning as well as development of student's understanding and critical thinking skills. According to Boud, Cohen and Walker, "Reflection is an important human activity in which people recapture their experience, think about it, mull it over and evaluate it."

Reflective process reinforces the process of learning and can be incorporated in many ways during the teaching and learning process. Teachers should encourage this practice among the students the development of their understanding as well as motivating them for further learning.

(d) Professional Development of Teachers

All the commissions and committees appointed by Govt. of India have always felt the need for professional development of teachers in higher education. The University Grants commission established 51 Academic Staff Colleges (UGC report 2001-02) for the conduct of orientation and refresher courses. There are certain areas which we need to practice for the professional development of teachers:

- Attending workshops, seminars, extension lectures and conferences.

- Regular reading and publishing articles in professional journals and periodicals.
- Regular updating with the recent books in relevant subjects.
- Using modern technologies such as video tapes, power point etc. for effective teaching learning process.
- Use of internet for latest information.
- Visits to other Universities and colleges.
- Seeking student's feedback on teaching effectiveness.
- Self appraisal on regular basis.

Use of ICT

Integrating ICT literacy is crucial as it means harnessing technology to perform learning skills. Students can use ICT to prepare assignments, collecting data, documentation and conducting research. The electronic technology includes the internet, satellite broadcasts, video conferencing, audio and video tapes, internet conferencing, chat rooms, e-bulletin boards, web casts, computer based instructions and CD-ROM.

At present, the teachers are not comfortable with the effective use of ICT as a powerful and diverse resource. They need technical support to be comfortable in using the technology and do experimentation for further advancement. Training and retraining should be a part of institutional policy to enable them to make use of multimedia for effective classroom curriculum transaction.

Best Practices in Evaluation

Evaluation needs to be treated as inbuilt system integrated with the teaching learning process. The teachers should be well trained to construct different types of evaluation tools to make it a continuous and comprehensive process.

A fundamental aspect of any sort of evaluation test is its effect on the students being evaluated. Since a student's commitment to learning depends greatly upon a belief that "learning is achievable" and therefore the way of the conduct of an assessment test and the presentation of feedback should not discourage the learners. Students can put off the whole idea of learning very quickly if they receive only the negative and critical feedback.

Conclusion

The unprecedented increase in enrolment makes it imperative for the institutions of higher learning to ensure quality of their programmes and products so that system becomes capable of self regulation and self renewal. Thus HEIs are required to identify best practices, adapt best practices and make them as integral part of the institution.

Adaptation of best practices to suit the needs of the institution is a daunting task. However the role of head of an institution is pivotal in the identification and adaptation of best practices. But the best practices are mostly leader-centric. Transformative leaders have the capacity to translate their vision into reality. But what happens when the leader has departed? It is therefore equally important that best practices are made an integral part of the institution, so that there is no void when the leader has departed. The institution should continue to grow as before.

Prof. V.C. Kulandai Swamy has beautifully put it as: **"My Legacy: Measure of My Merit".**

14. Innovation and Challenges of Higher Education[21]

India, known as the home of some of the oldest formal universities in the World, has a long and reputable history in the field of higher education. In modern times, despite serious handicaps of means and resources, the country has built up a higher education system which is the third largest in the World. With over 200 universities and 100 deemed-to-be universities, the system has created a vast body of men and women equipped with a high order of scientific and technological capabilities, robust humanist and philosophical thought, and creativity. However, the emerging needs and expectations have added new dimensions and challenges to the higher education system.

It is high time that we benchmark our education system to the best in the World. Challenges and Innovations are two buzz words often heard these days in almost all areas seeking development, nonetheless, higher education system also.

New types of Students, new technologies, newer aspirations and new expectations mark the knowledge era. The change in working patterns are evident in almost all sectors. All this transformation took place at such a rapid pace that the knowledge institution are still in the process of absorbing the shockwaves created by the technology. Mass utilization of IT generated gadgets like interests, mobiles, ipods MP3, 3G technologies etc. is focused on very practical things like meaningful employment and their future prospects.

The awareness level in the general mass has increased exponentially. This is giving rise to tremendous increase in aspiring population for higher education which in turn is creating tremendous pressure on universities

Universities hold a pivotal position in the society and nation for creation, dissemination and preservation of knowledge. In any nation, products of higher education are the ones

[21] Dr. Meera Sharma, Chenab College of Education.

who hold positions of great responsibilities and on their decisions lie the destiny of the nation and progress of mankind.

The Multinational companies which are spreading their paws throughout the globe exert vast impact on world economy and market capitalization.. They are also instrumental in spreading the cultures across the world. All this has created a cobweb of economy, cultures and traditions of different countries. The network is so interwoven with each other that the countries cannot isolate themselves from political and economic development with each other. If the Universities overreact to the market forces they may not be able to maintain a balance between the culture and values of the indigenous societies. If they stick on to traditional values they may lag behind in fulfilling the market demands and economic responsibilities. This dichotomy poses a great challenge in front of universities to identify the strategies of responding in a way to fulfill the needs of the society as well as the market demands.

A few safe innovations have been introduced to change the direction of the system of higher education that has for long remained stereotyped and inflexible. Semesterisation grading of students instead of assigning marks, continuous internal assessment, and choice based credit system, compulsory accreditation by the NAAC, and certain focused actions on the part of the UGC like the special development grants for excellence and innovations are some of the significant bold measures that augur well for the quality of higher education in the years to come. However, the moot question that stares in our eyes is as to where does the system, with all its complexities and inadequacies stand in the context of the world scenario of higher education?

The flutter that the Indian Cabinet Minister, Jairam Ramesh caused a few weeks back among the academic circles sounded like the Delphic oracle that is noted for its infallible authority and ambiguity. He said that IITs (Indian Institutes of Technology) and IIMs (Indian Institutes of management) are not World Class Institutions. It was an ambiguous statement as he limited his criticism to the faculty and not extended it to the students. But his oracular statement does have an infallible ring of authenticity as the faculties in both IIT and IIM have no research credentials to attract Nobel recognition.

Quality gaps are evidently increasing in higher education both, in terms of academics standards and as well as infrastructure facilities. The availability of qualified permanent staff, quality reference books, conducive research culture, good student support system and efficient governance and administrative system are still wanting in Indian higher education system.

The other important areas where urgent interventions is required are public-private partnerships; preservation and propagation of Indian traditional knowledge system, resource generation, examination reforms with respect to dual degree arrangement; sharing of courses; credit transfers; and sharing of teaching, etc.

It is high time that India takes higher education market to its grip exploiting its indigenous knowledge make a parallel expansion of global opportunities in higher education possible with multiple convergences and collaborations. Establishment of SAARC University in the country is one more step in this direction. Innovation are also required to self actualize the potentialities of Indian Higher Education to fulfill its important role in supporting and enhancing the process of economic and social development of the Country. We must make higher Education as a catalyst for social change and economic development; and as a basis for civilization and cultural values that promote social integrity and harmony.

It is high time that Indian Higher Education system prepares a Vision statement for Reforms and Innovations after clearly assessing and demarcating the country's need.

In the last few years, there has been massive quantitative expansion. The challenge is to enhance the quality of higher education and sustained at a high level through innovation, creativity and regular monitoring. Quality is the keyword and an essence for the success and survival of an institution. The quantitative expansion of higher education cannot be at the cost of quality. Quality assurance is not the destination but a journey to continuously improve and exhibit excellence.

In view of changing global scenario, Indian higher educational institutions should realize that pluralism and heterogeneity would always be an advantage and driving force for better quality and innovation. Interaction and cross breeding of ideas is the key to quality improvement.

Need of the hour now is to go beyond the boundaries and break new grounds in higher education in consonance with global curriculum which could be adopted transversally throughout the globe. The curriculum should have in its contents the cultures of different counties. It should be interdisciplinary and should promote divergent and convergent thinking. The ethical and quality standards should also be at global standards. Mobility of students be facilitated at national and international level.

We need to learn from the new paradigms and practices sweeping the World. We need to design innovative measures to augment the income from fees through consulting, training, technology transfer etc. There is serious need to look into the governance mechanism with multi-agency controls on Education in the nation. Technology, globalization, migrations, multiculturalism, and shrinking borders combine to promote a more interdependent future, in which development of a multi-cultural mindset is necessary in order to live meaningfully and productively in the 21st century. We have to confront to ever-shifting social, cultural and technological challenges and do our duty in the most honest and dedicated manner so that the future generations remember us with pride and honour.

15. Reforms and Innovation in Higher Education[22]

Education is the soul of democracy. No democracy can be healthy wherein the citizens are uneducated. Moreover, the higher education is the backbone of progress which in turn affects all the spheres of life. The developed countries have proved the worth of higher education by increased standards of quality of life of their citizens. India recently has been treading on that path. But, the higher education in India demands perennial reforms and innovation.

Reforms and innovation are two buzz words often heard these days in almost all areas seeking development, nonetheless, higher education system also. Reform is a voluntary effort to bring in changes in a system with an intention to improve it in a desired direction so as to make it relevant and useful to the stakeholders of the system and contribute to socioeconomic development. Innovation on the other hand id the conversion of new knowledge into new products and services to create value and increasing productivity. In simple terms innovation is nothing but introducing something new the makes the system better then the earlier.

Innovations are the application of intellectual acumen of the people involved in innovation, whereas Reforms are implementation of the innovations. Reform is a top-down approach based on external processes and Innovation id a bottom-up approach based on internal processes. But both the terms are collectively used because the ultimate outcome of both the processes is same i.e. to bring changes in the system. Therefore they go together.

Reforms and Innovations are rather fine tuning and redressing serious wrongs without altering the fundamentals of the system. They are the outcomes of the motivation of reformers. For example, strong motivation of the higher education manages after massification of higher education is to reduce cost to students and society. Small reforms in higher education can have large social returns in the form of health, wealth and well-being. The extent of change to be brought out by innovation can be pre-decided depending on the requirement.

Need of Reforms and Innovations in Higher Education System

The present higher education system is characterized by new type of students, new technologies, newer aspirations ands new expectations the mark the knowledge era. The changes in working patterns are evident in almost all sectors. All this transformation took place at such a rapid pace that the knowledge institutions are still in the process of absorbing the shockwaves created by the technology. Surprisingly, the knowledge institutions which are the receiving end due go mass utilization of IT generated gadgets like internets, mobiles, iPods MP3, 3G the developments, the youth

[22] Dr. M. J. Bandhiya, Principal, Mahila Arts & Commerce College – Veraval, Gujarat

of today want to make the world a better place of their won imagination and they are focused on very practical things like meaningful employment and their future prospects.

Now a days, even the people who are so called illiterates are thoroughly utilizing the technological gadgets and in the process are getting educated informally. The awareness level in the general mass has increased exponentially. This is giving rise to tremendous increase in aspiring population for higher education which in turn is creating tremendous pressure on universities. The university their roles through reforms and innovations to suit the new demands.

All said and done, universities hold a pivotal position in the society and nation for creation , dissemination and preservation of knowledge. In any nation, products of higher education are the ones who hold positions of great responsibilities and on their decisions lie the destiny of the nation and progress of mankind. The economy of the countries mainly depends upon the educated and skilled workforce. Universities are responsible for development of educated and skilled workforce vis a vis development of science and technology. There is a massive expansion of science and technology in almost all fields of life. It is the responsibility of universities again to direct the society in way to foster optimum use of technological innovations.

Globalization as we all agree is a phenomenon which has already taken place and there is no chance of it getting reverted, at least, in near future. But towards which way it will lead us will depend upon the wisdom and strategies we adopt to deal with the phenomenon. Multinational companies which are spreading their paws throughout the globe exerts vast impact on world. All this has created a cobweb of economy, cultures and traditions of different countries. The network is so interwoven with each other that the countries cannot isolate themselves from political and economic development with each other. In these circumstances there is no escape for the education system from the scenario. If universities over react to the market forces they may not be able to maintain a balance between the may lag behind in fulfilling the market demands and economic responsibilities. This dichotomy poses a great challenge in front of universities to identify the strategies of responding in a way to fulfill the needs of the society as well as the market demands.

Need of the hour now is to go beyond the boundaries and break new grounds in higher education in consonance with global requirements. There should also be new global curriculum which could be adopted transversally throughout the globe. The curriculum should have in this contents the cultures of different countries. It should be interdisciplinary and should promote divergent and convergent thinking. The ethical and quality standards should also be at global standards. Mobility of students (graduate, postgraduate and Research Scholars), staff as well faculty be facilitated at national and international level.

Countries like UK, Australia, China, Korea etc have evolved mechanisms to make themselves good destinations for education. United Nations of course, has been a global player in education for quite some time. It has also been maneuvering higher education basket to its benefit. It is high time that India takes higher education market

to its grip exploiting its indigenous knowledge base. Increased interaction between global economies, polities and cultures has made a parallel expansion of global opportunities in higher education possible with multiple convergences and collaborations.

Efforts nevertheless, are not bleak at Indian front also, Educational exchange programmes of Indian universities with their counter parts of other countries is a commendable effort. With institutions of repute like IITs, IISc, India can also become one of favoured destinations for students of other countries. Establishment of SAARC University in the country is one more step in this direction. However, these are not the only areas where reforms are required. Reforms are also required to self actualize the potentialities of Indian Higher Education to fulfill its important role in supporting and enhancing the process of economic and social development of the Country. Higher Education contributes to development of a nation in several ways – as a productive resource in scientific research and industrial technology; as a catalyst for social change and economic development; and ad a basis for civilization and cultural values that promote social integrity and harmony, which is essential for any nation to develop. Universities produce graduates with the analytical mind, creative-thinking and problem-solving skills needed in today's global economy.

Unlike earlier days of agriculture and industries, where the physical labour was the main source of livelihood and it was valued as the principle resources for development. Today, in the knowledge society, information and knowledge have become increasingly important inputs to the development process. All economic activities are becoming more knowledge-intensive. Increasingly, higher education is becoming a tool for preparing the youth for employment in the short term rather than a place to gain knowledge, wisdom and scholarship.

Therefore, all of a sudden within last two decades, the demand for higher education rose both in terms of increase in population as well as increase in aspiration of people to take up higher education. But resources did not increase reciprocally. As per the 2011 Census, 35.3 per cent of the country's population GER rate of 12.5 % and bringing a majority of this population in the ambit of higher education which is a great challenge as well as need is a big challenge for higher education. Great Reforms are required to meet this challenge. Providing higher education for this group is imperative and has to be provided on an unprecedented scale to meet the challenges of this unique demographic trend. There are also large disparities in enrolment rates across states, urban and rural areas, sex, occupation and poor and non-poor groups.

Quality gaps are evidently increasing in higher education both, in terms of academic standards and as well as infrastructure facilities. The availability of qualified permanent staff, quality reference books, conducive research culture, good student support system and efficient governance and administrative systems are still wanting in Indian higher education system.

The other important areas where urgent intervention os required are public-private partnerships; preservation and propagation of Indian traditional knowledge system,

resource generation, examination reforms with respect to dual degree arrangements; sharing of courses; credit transfers; and sharing of teaching, etc.

Conclusion

In today's fast changing world where educational possibilities are endless, higher education has to adapt itself to contemporary requirements ands respond to new challenges. In other words, in the Indian Higher Education system, Reforms and Innovations have probably become inevitable to cope up the thrust exerted by various factors, particularly the ICT and Globalization where the process of change is happening at jet speed.

It is high time that Indian Higher Education System prepares a vision statement for Reforms and Innovations after clearly assessing and demarcating the country's needs. A systems perspective allowed for the effective differentiation of institutions, with each type of institution, from technical college to university, having a clearly defined purpose and strategic objectives. The process of Reform and Innovation is best initiates once an overall vision statement gets formulated. This Special Issue of the University News on "Reforms and Innovations in Higher Education: a March towards World Class Standards' is aimed at Creating a Culture of Innovation and Initiating a Movement of Reforms in Indian Higher Education System. The goal is to help Indian higher education system payback to the country by producing highly skilled and mature intellectuals.

After all we the knowledge workers are the steering-holders of this knowledge era.

16. Use of Information Communication Technologies in Innovation & Change in Higher Education[23]

Now a day's traditional universities are in process of rendered obsolete by information technology, distance education, and other technology-induced innovation. Major changes are taking place, and it is one of the key parts of the academic transformation of the 21st century. The Internet has truly revolutionized how knowledge is communicated. In the world's most developed economies, the presence of ICTs has expanded exponentially and touched virtually all dimensions of the higher education enterprise. E-mail and online social networking spaces provide avenues for academic collaboration and joint research. Electronic journals have become widespread and in some fields quite substantive. Traditional publishers of books and journals have increasingly turned to the Internet to distribute their publications.

[23] Dr (Smt) Manju Saraswat, Principal, T.R Girls (P.G) College, Aligarh, Uttar Pradesh.

Effective teaching in the 21st century requires innovations , problem solving , creativity, continuous improvement, research, diagnostic use of data, flexible and personalized approach to meeting students as a result, the most effective educator are professionals with complex knowledge , expertise and competencies ,not merely deliverer of content but also managers of well behaved classrooms .unfortunately our education system often fails to give educators the tools to do their jobs well, we hold educators, responsible for student achieve but we don't support them with the latest technology, although lack of technical support can prevent teachers from successfully integrating ICT into education. With the emerging new technologies the teaching profession is evolving from an emphasis on teacher centered lecture based instruction to student centered interactive learning environment ,designing and implementing successful ICT enabled teacher education program is the key to fundamental wide ranging educational reforms.

Although the new learning environment can be created without the use of technology, it is clear that ICTs can provide powerful tools to help learners, access vast knowledge resources, collaborate with other, consult with experts, share knowledge and solve complex problems, using cognitive tools, ICT also provide learners with powerful new tools to represent their knowledge with text, images, graphics, videos.

Use of ICT in empowering teachers

Teachers can develop their knowledge and skill in a variety of learning environments both in individual and collaborative. Encourage to be mentors, emphasize ways that technology can facilitate and enhance teacher's professional lives. Enable learning independent of time and place and encourage teachers to be mentors, tutors and guides of the students rather than simple presenters of knowledge.

For the empowerment of teacher educators the professional development is very important factor and otherwise it will not be possible to prepare a new generation of teachers who effectively use the new tools for learning. Teacher educators can be benefited by enormous source of knowledge in their field by the use of various technologies and can therefore their students will be highly benefitted by them, and in this way the society will also be. Emerging technologies offer faculty additional opportunities to increase engagement with colleagues and learners. A spectrum of online, blended, and physically-based learning centers, each advocating a participatory approach to pedagogy, can serve the needs of all learners (from highly motivated and self-directed to those who prefer greater structure and guidance.

Recognition of only formal learning is a needlessly limiting mindset currently held by higher education. Online learning has impacted the higher education. While technology has become pervasive in institutions, wireless access, online library materials, electronic submission of assignments, and learning management systems are all "non-disruptive" or "safe" technologies, allowing faculty to teach in much the same way as they have done for decades. Universities are both comfortable and safe with this use of technology.

Use of ICT in Distance Education

The open educational resources movement has picked up significant momentum, providing free access to courses, curricula and pedagogical approaches not available locally. Distance education represents an area of enormous potential for higher education systems around the world struggling to meet the needs of growing and changing student populations. The distance learning l has been transformed by ICTs, allowing for real growth in numbers and types of providers, curriculum developers, modes of delivery and pedagogical innovations. For several decades the sector has been dominated by large-scale 'open' universities (Indira Gandhi National Open University in India counts 1.8 million students) with the effective use of ICT. Much of the appeal of distance education is attributed to its ability to accommodate the needs of a wide variety of learners (students located far from educational centers, employed adults, women who are attempting to balance family and school commitments) and even the incarcerated.

In this way a very interesting and new mode of teaching learning process "the concept of virtual class room is very common in developed countries and now in India. It is important to realize that we live in a fast changing world, dictated by the developments in technology. Quick access to information has made knowledge creation fast, and the multiplier effect has made it even explosive. It is increasingly difficult to anticipate changes and respond to them with creative purpose. Technologies are giving birth to many innovative techniques in education; virtual class room is one of them

Use of ICT as a virtual class room in higher education

Virtual means a simulation of the real thing, Virtual Classroom is a simulated classroom via Internet, which provides a convenient communication environment for distance learners just like traditional face-to-face classroom. A virtual classroom allows learners to attend a class from anywhere in the world and aims to provides a learning experience that is similar to a real classroom. When we go to college we have a schedule of lectures, which we must attend. Student must arrive on time, and when he enters the classroom, he finds a teacher, fellow learners, a blackboard or whiteboard, LCD projector, optionally a television screen with videos. Likewise, a Virtual Classroom is a scheduled, online, teacher-led training session where teachers and learners interact together using computers linked to a network such as the Internet. A virtual classroom enables to bring learners from around the world together online in highly interactive virtual classes while greatly reducing the travel, time, and expense of on-site teaching/training programs. It can be used as a solution for live delivery and interaction that addresses the entire process of creating and managing our teaching-learning process. It facilitates instructor and student in teaching-learning events, such as a seminar, online discussion or a live training for employees in company. As in traditional classroom, there are professor and fellow learners present with the student; we have many participants present in virtual classroom. They can talk with each other as in the traditional classroom via chat. Similarly presenter uses whiteboard, gives notes/resources, gives presentation as given in traditional one.

Thus, virtual classroom can be visualized as a classroom where a lecture or session is conducted using Internet.

Advantages of Virtual Classroom

Following are some of the advantages of Virtual classroom over traditional classroom model:

- **Removal of geographical barriers-** A virtual classroom allows learners and teachers to attend a single live training session from any place in the world, provided they have a computer and Internet connection.
- **Sessions can be recorded-** If learners miss a traditional classroom-based training session; they have very little opportunity to engage in the learning experience that took place. A virtual classroom has a facility to record the session so learners or teachers can replay it afterwards. Teachers too get an opportunity to review their own or their colleagues' performance.
- **Fast to organize** -Training can be organized more quickly than traditional classroom-based training. Classrooms and projectors do not need to be reserved; materials do not need to be distributed. The sessions are easier to schedule or reschedule since attendees will not be traveling to the venue of the session.
- **One to one communication** -In a virtual classroom environment, learners can talk to the teacher and to each other, and although this communication is not as rich in a traditional classroom, it still can help learners, since it is one to one. Due to these advantages, concept of virtual classroom is getting very popular. Since it allows learners to attend sessions from anywhere in world, it is very useful for distant learners and for peoples who cannot meet face to face because of lack of time.

Conclusion

Many of the assumptions that inform higher education today – such as classrooms, textbooks, physical space, co-location of educators and learners, pairing of research and teaching, bounded curriculum – are called into question by emerging learning theories and technologies. Global and distributed teaching and learning activities are possible due to development of applications that allow for virtual classrooms that permit audio, video, presentations, and break out rooms. Social media such as blogs, social networking software, podcasts, wikis, and others, permit learners to connect with each other (and with educators) from around the world. The system of higher education was formed before many of the technological developments that now permit global and continual connectivity. Changed information cycles, new opportunities for social cohesion unrestrained by geography, and distributed research labs offer a prospect for a new era of education. New approaches to research, teaching and learning, and accreditation

are possible. The affordances of technology outpace the existing system of education. Universities have, in the past, reflected society both temporally and geographically, including how information and knowledge is examined and disseminated. The 1960s resulted in both greater number of physical structures, and increased access of students, beyond what was the traditional body of upper class elite students. Higher education became accessible to individuals in the form of distance learning mode and virtual classroom that we can say new innovations. Weller (2009) argues that online technologies and learning enable higher education to comprehend and respond to the changing world and thus remaining relevant to the 21st Century society.

17. Best Practices of Innovations and Change in Higher Education[24]

Introduction

Best Practices of innovation and change is aspect for mind boggling today. Change is law of life: Change of Perish, say Charles Darwin. Innovation is for improvement of method and products.

Background of current reform and innovation efforts

In response to a national call for reform in undergraduates education the mid-1980s, many college and universities began to change institutional practices related to teaching, structured learning curricular and co-curricular initiative, and multi-level assessment.

Definitions

Reforms: Described as a "top-down" approach; either system-wide or anchored within several different institutions; Based on external processes

Innovation: Characterized as a "bottom-up" or "grassroots" approach; based on internal processes.

Educational Innovation Movement: "An overarching term that includes both reform and innovation. Primarily function as the "grassroots" level frequently national in scope; based on both internal and external processes

[24] Prof. L.N. Khatri and Dr. K.K. Khatri.

Applying the Terminology

Change is often used in a very general sense when discussing efforts to improve undergraduate education. When change is used as part of a technical definition, one must continually specify the whether the term is being used in the general or technical sense.

Innovation use of assessment can also be regarded as a reform, or movement.

Best Practices Benchmarking

Best Practices are mainly for quality enhancement as well as efficiency of a system. Many ideas have come to higher education from management and corporate world. Best Practices is also one such idea.

According to RC camp, introduced this concept, Benchmarking is the best parites that will lead to Superior performance. Organization should identify their key business process and measure and compare them against other organization considered to be of world class.

Benchmarking includes two step : process mapping and process measurement. **Under Process Mapping,** the institution identify key processes within the organization and then scan the similar institutions and their process to pink out the best processes or practices in the group**. Process measurement** is the development of meaningful core indicatrors to measure the deviations from the identified process.

Types of Innovations in Higher Education:

- Active Learning
- Learning Communities
- Collaborative Learning
- Student Peer Teaching
- Examination Reforms
- Undergraduate Research
- Faculty Peer Review
- Writing Across the Curriculum
- First Year Seminar
- Service Learning

Best Practices as a type of innovations case study of different college

St. Berchmans College, Changanssery Kerala

Here we deal with just two best practices in St. Berchmans College. Changanssery, Kerala. The college was started by the Catholic Bishop Mar Thomas Kurialacherry in 1922 as a junior college. It new officers 13 undergraduate,15 Post graduate and one M Phil course and 6 Ph.D Programers. Besides it has a management institute on the campus it was reaccredited at A+ grade. The first college in the state to secure this grade. It is also recognized by the UCG as a 'College with Potential for Excellence.'

Target Excellence

Objective: The Programmer 'Target Excellence' was introduced in the on 2003 to develop the soft skills of the students.

Need Addressed: It is now well known that student passing out from arts and science college in Kerala perform badly in the selection process in the job market. This is because they do not have the communicative skill, the self-confidence and etiquette.

Practice: 20 teachers from among the staff volunteered to engage classes outside the normal working hours. These teachers wee given special training for developing the soft skill of the students. The programmers include : 1st year degree student. The students are given training in Leadership, Public Speaking English (Reading, writing and speaking skills), study skills, Team work, communication, Emotional Intelligence Debate, CV Preparation and Group Discussion. A total of 64 hours training is given. (2 hours a week).

Second Year students : (i) The second year students were offered an optional Course on personality development. (ii) Event management team named Team Excellence was set up from among the student. It is 55 member team consisting of graduate student especially second year degree student. Through the programme we offer total event management including venue selection, invitations, correspondence, decoration, entertainment Set design and staging. The Student are given training session on event management. Moreover, They are given practical exposure through coordinating major programmes of the college.

Final Year Students : (1) The final year degree and post graduate student were given two day live-in training programme. (ii) A Contest was conducted among the outgoing student of the college at the UG and PG level. The best among them were given the luminary awards. (iii) A Passing out programme was organized for the final year student and certificates were distributed to each of them grading

them for their communicative skill, sociability, leadership, academic performance and intelligence.

Obstacles Faced : Although it was compulsory for the first year student , some of them did not take it seriously and absented from the training. It was also found that the optional programmes and hence the below average student did not benefit from the follow up programmes**.**

Impact : Many of the student found the course useful and they express their satisfaction through the feedback forms. A number of companies visited the campus for recruitment and a number of our graduate and post graduate student were selected by them.
Resources required : a full time HRD co-ordinator and an office,20 willing teacher, money to pay the co-ordinator and for the course material. They money was raised through PTA of the college.

Thanalkkoottam(Group study under tree) :

Objective : This progeramme, Thanallkkoottam which means ‘’ group under the shade of a tree was introduced and Year 2005 to offer an informal for the students to display their literacy and artistic talents.

Need addressed: Students on the campus are generally stage shy and are unable to face a crowd. Instead of forcing them on to the big stage in the auditorium and opportunity was offered to display their talents in the open air under oldest tree on the campus.

Practice: every Tuesday and Wednesdays after the rainy season the students were given an opportunity to display their talents during lunch interval-1.15p.m. to 2p.m under the shade of the oldest three on campus. The public address system was provided and programmes were conducted on department basis. The arts club of the college was in charge of its conduct.

Obstacles Faced : there was great difficulty in limiting the programme within the time schedule.

Impact : more and more student were exposed to the public. Programmes were conducted on a competitive spirit between the different department. The Programme was covered by the campus line of Malayala Manorama and the Asianet TV channel.

Case study of Shree Jain Post Graduate College, Bikaner

A resplendent meteor n the educational spectrum in the desert city the ‘second Kashi of Rajasthan’ Bikaner , Shree Jain Post Graduate College, Bikaner is

Glossy Pearl in the rosary of educational shrines nourished and nurtured by president ship of Shri **Vijay Kumar Kochar, Shri Narendra Kumar Kochar** as Secretary.

Shri Jain Post Graduate college is one of the prime insititution imparting higher education up to M.com ABEST & M.SC computer science. Established in 1954-1955 as intermediate college, Degree in 1957 & post graduate college in 1966 with one of important department as Accountancy & Business Statistics. The available education Facilities in P.G college are M.Com (ABST),M.sc Computer science Vocational course on I Degree, B.B.A, 'O' & 'A' Level computer Course, DOACC, New Delhi. At present the enrolment of the college is 1080. This is an ideal enrolment for an excellent educational institution. The result range comes to 100 to 90 % excluding few one.

Best Practices on the College: It is a remarkable practice in the college to maintain good discipline . There is no record of strikes; student unrest or student or student problem for last 10 year excluding one year. A large number of student PRANAM their Gurus as soon as they enter in the college. Here student's discipline is worth recording . This is especially value based.

One more best practice maintained by college management is the continuous efforts to start new courses in college to prepare youth so that can get job. In the same context. Number of other course is also proposed by UCG. It can clearly be seen from the Road Map that the journey of the institution has started from a sprout has now reached to tree , which is still expanding every day. Keeping in view "**Revisit India Education Vision-2020**" shri jain pathshala sabha is coming up with Shri Jain Institute of Management Studies for delivering Management education; Shri Jain Pharmaceutical college for medical studies; Add-on Program; Knowledge centre and many more. This will help upcoming generation of Bikaner to come up with their knowledge an sincerity to make development of their motherland an ongoing process, thus making Bikaner shine not only on national map but in international scenario as well as.

Another best practice followed by college is that our teachers invariably go to the classes even if there are few students. Our teachers are very regular about their classes they never cut or bunk their classes , as the practice pertaining at other places now a Day. This shows their devotion and sincerity for their work.

These best practices are in vogue in the college; however some more scheme are stil to be implemented in future.

Reference and Acknowledgements

1. Authors are thankful to principal Dr. Shirish Chindhade, Pune for his able suggestions and ideas relating to Best Practices. He deserves special thanks as he sent e-mail to writers for this academic pursuit.
2. National Centre for Post- secondary Improvement-Reform and innovation in Higher Education Project 5.3. website http://ncpi.standford.edu
3. College News a quarterly journal of higer education no. 29 December 2007.
4. Thanks to shri Narendra Kumar Secretary Shri Jain Pathsala Sabha & Shri Jain P.G.
   College,Bikaner and sh.Rafi Ahmed H.O.D. Post Graduate Deptt.of computer Science,Shri Jain P.G. college, Bikaner for providing information.
5. Principal Dr.Stephen Mathew , St.Berchmans College. Changanassery Kerla.

18. BEST PRACTIES IF INNVOCATION AND CHANGE IN HIGHER EDUCATION[25]

Introduction

Quality is turning out to be the buzzword in the Indian educational sector. Thanks to NAAC the Higher Educational Institutions (HEI) in India are paying more attention to quality and are making efforts to know more about quality and in sustaining and enhancing it without their organization. Evidently momentum is gaining in the quality movement in this sector. Among the different quality management concept adopted in this sector, 'Benchmarking' takes a prominent position.

What are the Best Practices ?

The Greek Philosopher Aristotle says "Excellence is not an act but habit" We are told the excellence. Which means supreme quality, is a result of best practices followed by individuals and institution. Since we are all concerned with the creation of excellence on our staff, it is good for us to understand how Best Practices are formed and how they are Conducive to creation of quality. The NAAC has suggested a five –step approach to Best Practices (BP). It includes/ recommends:

1. Identification of BP
2. Implementation

[25] Dr. Dilip Arora and Dr. Navendu Khatri.

3. Internalization
4. Institutionalization
5. Dissemination

Just as the test/ taste of the pudding is in the eating. Similar all Best Practices are proved in their performance and result.

Types of Innovation In the form of the Best Practices:

Best Practices in any institution can be adopted among the Following :

- Cultural Pluralism
- General Education
- Active Leaning
- Standards
- Cooperative Education
- Critical Thinking
- International Education
- Science Reforms
- Technology
- K-16

Although the above best practices are the standard practices but Various college adopt the practices as per facilities an environment applicable at their location. Here are the case study of different college which reflects, how and which best practices adopted by the college in practice.

Case studies of Different College – Best Practices

Case Study of Lords College , Malad (E.) Mumbai: This college has adopted two best practices in the following manner:

Counseling Department: The college host a counseling department, presently having one full time counseling psychologist. The services of this department are (free) for all student and teachers. The function carried out by this department are as follow:

Individual counseling on anti smoking, anti-alcohol, Aids awareness, emotional intelligence and career guidance. Conduct study-skill development programmes in regular class times- table for all students.

Conduct self improvement workshops for teachers.

Carries on screening for learning disabilities.

Think-Tank: The College has a student –teacher body called Thin Tank. This body meets regularly and discuss the policies and practices the speakers forum out side are called and they are given leadership training programmers.

The awards for student include a beautiful trophy a certificate and 50% scholarship in the nest academic fees (almost equivalent to 5 to 15 thousand).

Case Study of M.N Institute of Management studies, Bikaner (Rajasthan)

M.N.S Medical & Educational Society is a leading society for dissemination of higher education and promoting research work in the state of Rajasthan with its H.Q at Bikaner. The M.N.S Medical Educational society started its group of Institution for the social economic upliftment of society. It came up with the concept of imparting quality education in emerging fields and commenced its operation in the year 2003. , with state of art infrastructure committed faculty ad a leaning ambience. To Face the scientific, technological, managerial and local challenges in the fast evolving global scenario with a high degree of credibility, integrity, ethic and possessing cross cultural sensibility. The society offers various program like as MBA(Master of Business Administration), B.H.M.S.(Bachelor in Homoeopathic Medicine & Surgery), B.SC (Nursing), GNM,M.N college of Nursing,, Post Graduate Courses of Applied Science, B.Ed. M.D.H.M and M. Phil Course are to be opened near future. At present above 1020 students are getting in above different courses.

M.N Institute of Management Studies adopted the best Practices like as:

(1) Regular Personality Development Programme
(2) Regular Interface with Industry
(3) Teacher Methodologies with the help of Case Studies, PPT Presentation and Renowned visiting Faculity.
(4) Personal Attention to each student.
(5) Spiritual Orientation
(6) Value Education

Certain Extension Programme,Computer Literacy Programs are also included for computer awareness for newly Appointed teachers.

Case study of Gurukul Sanskar Girls College Sumerpur

To asses to higher education to the girls student of rural & tribal areas Gurukul Vikas Santhan has established a college named as Gurukul Sanskar Girls College, Sumerpul Pali. At the initial stage College started in 2003-04 only with the Arts Faculty for Girls. Thereafter looking to demand of area management committee of the college introduced the Bachelor of Computer Application (B.C.A) course in the year 2007-08and therafter Bachelor of Commerce (B.Com) course in 2009-10.

At Present 485 girls are on role where as at the initial stage only 35 girls have the admission.

Some of Best Practices of College are like so:

Personality Development Courses: To develop the personality of girls coming From Rural and Tribal areas college has Stated Personality Development Course. Expert are Invited from various college. Management committee bears the total charges of T.A D.A And honorarium. The outcome of the this practice remained appreciable by all participant.

Counseling program: College conducts career counseling programs for the guidance of girls and also conduct various programs for empowerment of female generation.

Social Awareness programs: College has developed a sense of social responsibility among the girls. The girls visit and provide voluntary service at orphanages and homes for the aged in the locality.

Suggestions:

It is suggestion that as a best Practices every institution should try launch its website:

(1) It should be Functional
(2) It should be regularly updated
(3) It can be interactive
(4) Sometime class notes on important topic can also be put on it.
(5) A teacher should be in- charge of the website for updating and monitoring.

Chapter V

Organization of the Conference

The Indian Colleges Forum (ICF) of Society for Education and Economic Development (Seed) has been organizing annual conference to on a theme of contemporary relevance and bring Principals of colleges drawn from various part of the country. The 18th Annual Conference was organized by ICF-SEED in collaboration with Forum of Recognized Colleges of J & K and Kawa Education College of Jammu. The members and President of FORC E and President of Kawa Colleges and team of dedicated teachers and volunteers made the conference a great success. The details time schedule, list of resource persons and the list of participants are given in the following sections:

Section-I Time Table

Section-II List of Resources Persons

Section –III List of Participants

Section-I

Time Table

16th March, 2012

0800-0930 **Registration of Delegates**

0930-1115 **Inauguration**

His Excellency The Governor

Sh. N.N.Vohra
Chief Guest, Guests of Honour

Er. R.S.Chib
Hon'ble Minister for Technical Education

Jb. A.G.Malik
Hon'ble Minister for Higher Education

S. Harbans Singh
Former Minister President FORCE

Dr.S.M.P.Singh Ishar
Vice Chancellor Jammu University

Highlights of ICF Conference & Higher Education Summit
Dr. G.D.Sharma
Former Secretary UGC and
President SEED

1115-1130 **Tea Break**

1130-1300 **Technical Session-I**

Policy, Practice and Resource Constraints Hindering Innovations and Change

Chair	Shri S.C. Behar
Co-Chair	Principal, Dayanand Shetty
Key Speaker	Dr. G. D. Sharma
Delegate Speakers	Dr. H.M.Shah
	Dr. M.J.Bandhiya

1300-1400 **Lunch Break**

1400-1530 **Technical Session-II**

Making Higher Education Responsive to Innovation and Change: **Academic Initiatives and Use of ICT**

Chair	Dr..Madhu Singh
Co-Chair	Dr. M.S. Rawat
Key Speaker	Prof. M.M.Pant
	Prominent Academician
Delegate Speakers	Dr. Prakash
	Dr. Manju Saraswat

1530–1545 **Tea Break**

1545-1630 **Technical Session-III**

Role of Private Sector in Promoting Higher Education

Chair	Prof. M.R Puri
Co-Chair	Professor MM Pant
Key Speakers	Dr. S.C.Behar
	Eminent Academician
	Dr. Rajeev Gupta
	Former DCD Jammu University
Delegate Speaker	Dr Sandeep Paul,

1630-1830 **Group Discussion**

1. **Policy, Practice and Resource Constraints Hindering Innovations & Change –**
   Chair Dr. SC Sharma
   Co-Chair Dr. V.B. Kodak

2. **Making Higher Education Responsive to Innovation and Change**
   a) Role of Private Sector
   b) Role of Academic Initiatives and ICT
   Chair Dr. Rajeev Gupta
   Co-Chair Dr. Mohmad Basheer

3. **Leadership Role in Enabling Higher Education for Innovations and Change**
   Chair Professor MM Pant
   Co-chair Dr. Nalini Bhatt

1830-1930 **ICF Executive Committee Meeting**

1930-2200 **Cultural Programme and Dinner**

17th March, 2012

0930-1100 **Technical Session-IV**

Leadership role in enabling Higher Education for Innovations and Change

Chair Dr. S. Harbans Singh
Co-Chair Dr.Budhin Gogoi
Key Speakers Professor MM Pant
Dr. N.S.Gupta (Retd. Prof.)
Jammu University
Delegate Speaker Dr. Bali

1100-1115 **Tea Break**

1115-1300	**Technical Session-V**
	Best Practices of Innovations & Change in Higher Education
	Chair Dr. N.S. Gupta
	Co-Chair Dr. Sirai-udi-in Bhatt
	Key Speaker Dr. S.C.Behar, Eminent Academician
	Delegate Speakers Dr. Madhu Singh, Dr. Prakash
1300–1400	**Lunch Break**
1400-1600	**Presentation, Reports and Recommendations & General Body Meeting**
	Chair President, SEED
1600-1830	**Valedictory Session**
	Hon. Finance Minister
	J&K Government
1930-2200	**Cultural Programme and Dinner**

18th March, 2012

0800	**Visit to Vaishno Devi Temple**
	Local Sights / Patni Top
	Departure

Section-II

List of Resource Persons

1. Dr.S.M.P.Singh Ishar
   Vice-Chancellor
   Jammu University

2. Dr. G.D.Sharma
   Former Secretary UGC and
   President SEED
   New Delhi

3. Prof. M.M. Pant
   Former Pro-Vice-Chancellor
   IGNOU
   New Delhi

4. Shri S.C. Behar (Retd. IAS)
   Former Principal Secretary, (Higher Education),
   Govt. of Madhya Pradesh and
   Vice Chancellor,
   Makhanlal Chaturvedi Rastriya Patrakarita Vishwavidyalaya (MCRP),

5. Dr. S.C. Sharma
   Principal (Retd.)
   Ramlal Anand College
   University of Delhi
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6. Dr. S. Harbans Singh
   Former Minister
   President FORCE

7. Dr. N.S. Gupta
   Former Dean
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Section-III

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31. Dr.Arun K.Gupta
MIER College of Education

32. S.Harbans Singh
MC Khalsa College of Education

33. Sh. T.R.Mahajan
N.S.M College of Education

34. Dr.Deepali Sharma
Guru Teg Bahadur College of Education

35. Dr.Vikram Gulati
Shivalik College of Education

36. Er.R.S.Chib
Chenab College of Education

37. Dr.Roop Lal Sharma
Trikuta College of Education

38. Sh.A.K.Kapoor
Adarsh College of Education

39. Sh.Aman Kalra
Kalra College of Education

40. Sh.Ram Paul
New Millenium College of Education

41. Sh.Vidhi Singh Jamwal
National College of Education

42. Dr. S.P.Suri
Calliope College of Education

43. Sh.Sanjay Mahajan
Atman Calliope College of Education

44. Sh.Sudershan Singh Wazir
Harvard College of Education

45. Prof.Harbans Singh
Guru Nanak College of Education

46. Sh.Ved Prakash
R.K College of Education

47. Sh.Kamal Gupta
Ashoka College of Education

48. Sh.Swami Vishwatamanand Sarawati
Guru Gang Dev Ji College of Education

49. Er.A.G.Kohli
B.N College of Education

50 Sh.Sohan Lal
New Age College of Education

51. Sh.S.K.Puri
Shri Vaishno Devi College of Education

52. Sh.Raj Daluja
J.K College of Education

53. Sh.Arvind Mahajan
K.C.Gurukul College of Education

54. Mrs. Harmeet kour
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55. Sh.S.P.Kalra
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56. Mrs. Anu Gupta
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57. Sh. Gandharav Singh
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58. Mrs.Anu Dogra
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59. Er.R.K.Puri
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60. Ms.Madhu Sharma
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61. Sh.Surjit Singh Jamwal
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62. S.Nirmaljit Singh
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63. Sh.Om Parkash Gupta
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64. Er.M.S.Katoch
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66. Captain S.S. Soodan
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67. Sh.Brij Mohan Sharma
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68. Mrs.Pooja Malhotra
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74. Dr.Deepali Sharma
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75. Sh.Pardeep Singh
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77. Sh.K.K.Shastri
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81. Sh.Prakash Sharma
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82. Sh.Swami Vishwatama Nand Saraswati
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83. Sh. Z.A.Chowdhary
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84. Sh.Sudarshan Mahajan
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85. Sh.C.L.Tickoo
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86. Jb.Abdul aziz wani
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87. Mohd.Sayeed Beig
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88. Sh.Arvind Mahajan
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89. Mr.Khalid Jahangir Malik
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90. Smt.Rajni Bala
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91. Smt.Nirmal Sharma
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92 Sh.Ajaz Ahmed Jan
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93. Mrs Veena Handa
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94. Swami Parmanand Sarswati
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95. Sh.Hrjinder Singh Anand
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96. Sh.K.K Bakshi
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97. Sh.Rameshwar Mengi
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98. Sh. Thakur Sham Singh
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Besides above listed persons, a good number of teachers and students from these colleges and Jammu University attended the conference. Students' participation was unique during this conference. Total numbers of participants were more than 200.