PROCEEDINGS
OF
Management Development Conferences
for
Vidya Prasarak Mandal (VPM)’s Group of Institutions
Heads of Institutions / Departments

Rising Above and Beyond Excellence (RAABE)
in
VPM’s Group of Institutions (GOI)

COMPILED BY: Dr. GURUPRASAD MURTHY

VPM’s DR VN BRIMS PUBLICATION
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June and October 2013

COMPILED BY: Dr. GURUPRASAD MURTHY

VPM’s DR VN BRIMS PUBLICATION
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The purpose of RAABE is to enlighten Principals, Heads of Institutions, Heads of Departments of VPM’s GOI on new dimensions in higher education. There is a paradigm shift in the field of education, thanks to liberalisation, globalisation and privatisation. The IT revolution, the information explosion, the changes in nature of the work place in corporates and educational institutions and the change in mindsets of students, have all converged to make special demands on providers of education.

India has a place of pride as the reservoir of human assets and talent of the World and is responsible for the export of talent across a wide spectrum of occupations and professions to the rest of the World. It is not untrue to say that Indians are employed in rather large numbers in multi-nationals, particularly, the US. Thus, India has a competitive edge in the knowledge society of current times and it should strive to sustain the same.

A knowledge society requires that knowledge be used through all its constituents and endeavors to empower and enrich society thus using knowledge as a powerful driver of social and economic transformation. Educational Institutions have to posit themselves as learning organizations, committed to innovation and change management. Further, they have to display their resiliency through their capacity to generate, absorb, disseminate and protect knowledge as well as use it to increase the wealth producing resources of society and social welfare of all stakeholders. According to the Government of India publication, education in the context of knowledge society shall “enlighten people and take a holistic view of life as a fusion of mind, body and spirit.”

1India as Knowledge Superpower Task Force Report Government of India Publication pp 1 & 3
VPM’s GOI has always been in the forefront to champion the cause of academic excellence. The re-accreditation by NAAC as ‘A’ grade and ‘Best College’ awarded by University of Mumbai to K. G. Joshi College of Arts and Commerce College and B. N. Bandodkar College of Science bear eloquent testimony to the same. In addition, VPM’s Polytechnic is acknowledged as the ‘Best Polytechnic’ in Maharashtra and DR VN BRIMS has been able to identify itself as a quality institution in a short period of three years since its inception in 2005, being among the younger Institutions in the VPM Group. Further, the VPM’s schools have also many laurels to boast of, at home and abroad, to justify themselves as Institutions of excellence.

The past was great and glorious no doubt. However, to make the future still better and more glorious, there is a need to develop mindsets, among the fraternity of VPM’s GOI, which are pragmatic, purposeful and positive. VPM’s GOI shall not only imbibe change but also be in the forefront and ride at the crest of the wave of changes in the environment of current times. It is now time, an opportune one at that, for VPM’s GOI to rise above and beyond excellence. Keeping this thought in mind, this conference is an effect to throw new light on the mode of operation of VPM’s GOI for the future. There is a need to exalt ourselves and strive to achieve levels which transcend excellence and explore global competitiveness. Hence, the conference.
(1) To provide a platform for consultation and collaboration on issues of common interest amongst VPM’s GOI.

(2) To evolve mindsets amongst the fraternity of VPM’s GOI that are positive to enable the capture of change as a way of life.

(3) To be aware of the nuances and subtleties governing the management of education with a view to transcend beyond excellence.

(4) To posit VPM’s GOI as learning organisations by sharing experiences and converting implicit knowledge into explicit knowledge and migrating from silo operations to 360 degree communication.

(5) To evolve and develop a perspective plan, for individual Institutions and VPM’s GOI as a whole by way of a blueprint along with a time-bound, plan of action for the future.

(6) To develop a SWOT profile of each Institution and create opportunities for symbiotic alliances, between VPM’s GOI inter-se, by fortifying strengths, de-risk weaknesses, explore opportunities and insulating against threats.

(7) To provide an opportunity for mutual society between VPM’s GOI for a stimulating and vibrant intellectual climate which can facilitate the endeavours of VPM’s GOI in creativity and innovation in education which subserves the cause of RAABE.
(8) To develop revenue, ‘neutral or plus’ models to make resource management effective and efficient through well sustained result resource ratio.

(9) To make the process of management of VPM’s GOI and the entire gamut of its activities, viz. teaching learning process, research and development, education / industry interfaces et al. a pleasant, optimistic and enjoyable experience for all stakeholders.

(10) To do anything which is incidental, consequential and supplementary to the above.
RAABE was a novel effort to explore the mindsets of the teaching fraternity of VPM’s GOI through a stimuli to their present levels of motivation and self actualisation to move towards, new, extended horizons comparable with global rather than mere local standards or historical achievements. The Chairman, Dr. Vijay V. Bedekar, is interested in continuous improvement in the levels of performance of VPM’ GOI. However, such an improvement is contingent upon the favourable changes in the levels of performance of the key resources of any educational institutions viz. teachers and students and students and teachers\(^2\). It is the cumulative effect of consistent improvement that can have a cascading impact on the aggregates of performance metrics which automatically reflect, the newer and newer, higher levels of equilibrium\(^3\). In fact the expression ‘equilibrium’ is a misnomer and an antithesis of change – particularly of continuous change. Given the above mentioned aspirations of the Chairman it was decided to design a management development programme which could capture various aspects governing continuous improvement in the prevailing levels of performance of VPM’s GOI vis-a-vis globally recognised and universally acceptable quantified measurable indicators. Thus, after considerable application of mind and thorough deliberations it was decided to address the issues presented in Exhibit 1.

\(^2\) Of course, other complementary resource inputs are equally important and management is seized of the same.

\(^3\) Equilibrium is state of rest or absence of change at or over a period of time.
Thus, the conference was intended to be a rendezvous to motivate the mutual knowledge sharing process between the delegates and the facilitator/s and also between the delegates, themselves, inter-se. It was not intended, at any time, to be a classroom, unilateral, instruction driven didactic pedagogy. Accordingly a small group of 32 delegates, Heads of Departments, Heads of Institutions and senior teachers from B. N. Bandodkar College of Science and Arts and Commerce colleges, was chosen for the first conference held on in June, 2013.

Enlightened and encouraged by the success of the first conference it was decided to hold a second conference in October, 2013. This time it was a group of 20 which included 8 delegates from VPM’s Polytechnic and 12 delegates from VPM’s Science college. The structure of the conference was identical except that an attempt was made to introduce some inputs which the Polytechnic delegates specifically wanted viz. Six Sigma, Lean
Management, Emotions and Stress Management, Soft Skills and Organisational Performance. There were a few minor changes though⁴.

Further, a similar exercise was conducted for the delegates of the second conference who were also required to make presentations on similar topics viz. How to make VPM’s Group of Institution world class institutions and how to improve productivity of VPM’s GOI?

With a view to give the delegates a full opportunity to unleash their hidden potential to articulate their aspirations, stimulate their achievement motivation and vent their ideas and thoughts, a full day was devoted to delegates’ presentation which included broad areas viz. creativity and innovation, productivity improvement and academic excellence models as relevant and applicable to VPM’s GOI. The conference proceedings were of a very high order. The facilitators, as well as the delegates, did an excellent job. Thus, the first conference was, in the words of the delegates ‘a great eye opener to many new concepts, thoughts and ideas explored and exchanged among ‘delegates inter-se’. The delegates actively participated to elicit the maximum advantage from all sessions. The positive and proactive involvement of the delegates over the entire tenure of the three days bears testimony to the mature and confident approach of the delegates to the theme – RAABE. The teachers of VPM’s GOI indeed rose to the occasion by making several useful contributions which were pointers to the events to unfold for VPM’s GOI as spelt out in the Epilogue.

⁴A session on creativity and innovation was replaced by a session on ‘Six Sigma and Lean Management’ handled by Mr. Shreerang Chitanvis and a presentation by Mr. Avkash Yadav on ‘Education System doesn’t give Value for Money (Survey conducted – The Times of India – 17th Sept., 2013)’
RAAB

E needs to be understood in proper perspective so that the journey towards the said destination is well planned, optimistic, enjoyable and performed from within. The expression excellence has been well articulated in one of the slides presented by Dr. Vishnu Kanhere and shown on p. 55 slide no. 8.

Thus, excellence is an attribute which is ubiquitous in academic institutions of immense reputation and eminence in the field of higher education. Such institutions are able to encash on their perceived brand value by attracting the best of students and teachers thus reinforcing their already prevailing high quality. Nevertheless, excellence of any academic institution depends on two critical human resources viz. students and teachers. Students of high caliber, that is to say the crème de la crème, add premium value to the institutions while they are pursuing their courses by raising the levels of the learning process and their accomplishments and contributions even during the tenure of the course through various feats such as winning in inter collegiate events, contributing new ideas leading to publications while they are students, contributing excellent term papers and projects which are well received by industry leading to successful prestigious placements. Following the successful completion of the courses, after such students leave the portals of their alma mater they add still greater value to their academic institutions by being proud brand ambassadors of their place of learning. This is again a mutually reinforcing effect and improves the market capitalisation of the
educational institution not merely in financial terms but in terms of overall social and prestige value.

Similarly teachers play a very important role in contributing to the brand image and value of an educational institutions. To start with, the teachers are looked upon with respect and as role models who walk the talk and can be emulated for their virtues. They not only bring their knowledge and skill set to the classroom but also they come with their value systems, their culture and ethos of the institutions. If the teachers fail to perform on these fronts unfortunately the job of developing posterity is ill done. It is necessary that teachers must be focussed, committed and dedicated and students need to perceive the same through actual experience and attributes. Whatever the teacher is doing is observed and hence the teachers as role models should guide students themselves to avoid engaging in plagiarism, unauthorized collaboration, cheating, or facilitating academic dishonesty. This advice needs to be heeded.5

RAABE requires that educational institutions address a few important issues viz. student centric approach, developing life skills, peace education, intellectual curiosity, preparation for a participatory democracy and last but not the least equity and inclusion.

1. Student centric approach implies that the academic institutions will be able to engage the students proactively in their learning process and their outcomes are visible in their behaviours which are ‘fostered and developed’. Further there is a progressive migration from pedagogy to andragogy through a wide variety of teaching approaches which include self-initiated, directed and controlled learning, team learning,

experiential learning, role plays, behavioural rehearsals⁶ and parent involvement. As a result the learner explores his experience at the academic institutions through a pleasant, optimistic, hopeful and enjoyable journey. Such a process necessarily involves self assessment which helps individuals or groups or third party stakeholders to assess the changes in attitudes and behaviours visible in the activities of day to day life or simulated environments in which students are actively engaged and their behavioural pattern revealed. This helps to achieve the real purpose of education as mentioned in an UNESCO report of 2010 which says that ‘core purpose’ of education is ‘ensuring that students acquire the skills that shape their future life chances’.⁷

Thus, if students have to become responsible citizens, teachers must ensure that they “develop the right bent of mind that attitude of reason, that spirit of democracy which makes them responsible. The aim of education is not to augment earning power but to enhance learning power.”⁸

2. **DEVELOPING LIFE SKILLS:**

The term ‘life skills’ can be broadly interpreted, and is often assumed to include such topics as health, hygiene, etiquette, and vocational skills. In UNICEF, however, life skills are defined as “psycho-social and interpersonal skills used in every day interactions...not specific to getting a job or earning an income”. The definition also explains that “a wide range of examples exist under the UNICEF working definition of Life Skills, such as assertion and refusal skills, goal setting, decision making and coping skills” (UNICEF, 2000). Life

⁶is a behavioural therapeutic approach which addresses rehearing behavioural patterns till such time as they can be introduced for practical use in real life situations with a view to modify or improve interpersonal dynamics and social interactions. The main technique deployed role plays and modeling.

⁷**SOURCE:** UNESCO, 2010, p. 104.

⁸**SOURCE:** The Times of India, 5th September, 2011.
skills curriculum focuses on attitudes, values and behavioural change, rather than seeking to provide young people with a body of knowledge about a set of topics. As with literacy, age-appropriate life skills can be incorporated into other areas of study.

There are other authorities which also stand by this thought on education. According to Swami Kriyananda, education should prepare students ‘for meeting life’s challenges and not only fit them for employment for intellectual pursuits’. The vision has to be the tenure of the life rather than the duration of the education. True education must be directed to help students prepare themselves ‘for lifelong learning process’. Again, it is said ‘the future will depend a great deal on the manner in which education programs and methods are designed to prepare the youth for the world that they have to inherit’. Further it says ‘former education needs to go beyond the exclusive aim ..... securing gainful employment’.

3. **PEACE EDUCATION:**

Education should serve the purpose of contributing to humanity in one form or the other. There is so much of turmoil, turbulence and trouble in different parts of the world that students going through educational programs should develop skills which can prevent conflict or resolve conflict peacefully, as and when it arises. Hence, peace education.

Peace education addresses cognitive, affective and behavioural learning and can occur both within educational institution, through curriculum development and teacher education, and outside of schools, through camps, sports and recreation programmes, youth groups and clubs, and training for community leaders, parents,

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10 Speaking Tree, Young Agents of Positive Change, A Baha’i Perspective dated 21st March, 2012.
librarians and the media.\textsuperscript{11} Although few research or evaluation studies have examined peace education, some evidence exists that anti-violence programmes can be effective.\textsuperscript{12}

4. **INTELLECTUAL CURIOSITY:**

Education should serve the purpose of encouraging creativity and innovation by stimulating the curiosity of the students. No question asked by students should be regarded as naive or stupid. However curiosity cannot be taught it has to be caught. Hence, students must be self learner with respect to acquiring the habit of being curious. Teachers can facilitate by encouraging students to cultivate curiosity vis-a-vis the learning process. In fact all that is learnt can be the domain of curiosity if students are taught to ask four important questions – What is it about? What is it for? How does it work? And how does it fit in with life? Once the habit of curiosity is inculcated, the dullness and toughness of learning is forgotten. As it is said in Sanskrit, ‘\textit{Shraddhavanlabhatejnanam}’. In the Upanishad, the Guru tells the student ‘\textit{Tatparahsamyatendriyah}’. Teachers must realise that youth is precious and should be a time for exploration, reinvention, creating magic and dreaming the impossible to be auctioned towards possibility. “\textit{Everything and anything is possible}”. Rachel Carson, says ‘\textit{the youth is fresh and beautiful, full of wonder and excitement}’\textsuperscript{13}. Hence arts education is extremely important to develop a sense of curiosity among students. Teachers have their own role in exciting, electrifying and enthusing students. Exploring other pathways


\textsuperscript{12}“Defining Quality in Education” <\url{http://www.unicef.org/education/files/QualityEducation.PDF}>

of learning, for example arts education, is one way of expanding the freedom of mind.

Research at Harvard in a project called Project Zero saw other skills that were being developed by arts instruction: “persistence in tackling problems, observational acuity, expressive clarity, reflective capacity to question and judge, ability to envision alternative possibilities, and openness to exploration”.14

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The spectrum of visual arts including the performing arts, music, film making and art appreciation are all about disciplines in the rigour of learning. It is about practice that builds to a level of proficiency as opposed to instant gratification. It is exposure to another luminous world of beauty. It is increased understanding of history and the shaping of art forms as they mirror the times. It is learning about being still and appreciating the contributions of others. It is about adding to our multi-cultural awareness and sensitivity. And it is about illuminating and celebrating individual talent.

5. **PREPARATION FOR A PARTICIPATORY DEMOCRACY**: India is the world’s largest democracy and the dream statement of the constitution viz. ‘fraternity assuring the dignity of the individual’ will remain a distant and desirable destination if education does not prepare students for a participatory democracy. It is not only understanding the protocol and mode of operation of a democratic form of Govt. As John Dewey emphasis that “democracy is much more than a form of government. It is a way of life in which all citizens actively, and appropriately, participate in making and

implementing all the communal, societal, and institutional decisions that significantly shape their lives”.\textsuperscript{15}

Thus participatory democracy expects that education provides students adequate insights into their role in day-to-day life and they are socially sensitive persons who will take up the cause of fellow beings and thus contribute to the welfare for humanity at large. According to an English journal, students need to develop the following attributes:

- The ability to communicate and work collaboratively.
- The ability to work effectively in a multi-cultural society and workforce.
- The ability to adapt and learn new skills in a fast developing society.
- The ability to think critically.
- The ability to use available technology to communicate within and across worlds.

6. **EQUITY AND INCLUSION:**

In a country like India which houses some of the richest people in the world and also a sizeable chunk of the poor, equity and inclusion is bound to be an important dimension to be reckoned with in negotiating various live situations.

Of course, the constitution provides clear directives in this behalf as a shibboleth of a free society. Thus article 38 of the Constitution of India mandates that “the State shall strive to promote the welfare of the people

by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of national life."

Therefore, education has to address the issue of equity and inclusion to translate the provisions of the constitution into action by inculcating in students the thought that in an environment in which we live in India there is a need for sensitivity to capture equity and inclusion in formulation and implementation of education policies in particular and policies in general. In fact Article 38 gives the message that the disadvantaged shall be taken care of by the state and justice shall be the order of our national life. Higher education contributed to the national well being, the character of society and the social order. Hence, education institutions cannot foreclose equity and inclusion by creating islands of excellence meant exclusively for a certain class of people. Some amount of social redistribution of education including professional education is the order of the day as mandated by the provisions of the Constitution. Knowledge is power and a great force which unites people and is generated in day-to-day life almost everywhere. According to a Supreme Court judgement, Knowledge is shared by human beings all over the world out of love for humanity. Knowledge was passed down from the dark and forgotten past, out of love for humanity. To attempt to convert that knowledge into “gated communities of exclusion” would be to sow the seeds of destruction of humanity. Teachers have great responsibility in ensuring that inclusiveness is part of education and all students need to be given the necessary attention so that their potential to fight for supremacy to be at par is well sustained. In the circumstances there is no such thing as a bad student; only a bad teacher. But there are teachers who constantly innovate and introduce new methods of teaching and learning to make sure no student is left behind.16

16The Times of India, 5th September, 2010.
Educational Institutions have been used as “*transit camps to the workplace rather than incubators for the transformation of the individuals. Hence, educational processes have resulted in closing not only the human mind but also the human heart.*”\(^\text{17}\)

\(^{17}\text{The Times of India, 5}^{\text{th}}\text{ September, 2011.}\)
Excellence and Perfection:\n
Dr. Vishnu Kanhere’s table below on ‘excellence’ and ‘perfection’ is self-explanatory with respect to the nature, scope and meaning of the said expressions. The theme of VPM’s (Thane) conferences is ‘Rising Above and Beyond Excellence (RAABE)’. The question is what is above and beyond excellence? If excellence is all that is indicated in the said slide, what is it that still remains to be accomplished so as to rise above and beyond excellence and tend to move towards perfection.

| **Excellence** | quality of being outstanding or extremely good  
| *superiority, perfection* |
| **Outstanding** | prominent, eminent, distinguished, notable |
| **Good** | to be desired or approved of, morally right, beneficial |
| **Superiority** | pre-eminence |

| **Perfection** | ☞ the process of attaining a state of completeness and flawlessness  
| ☞ which is complete – (which contains all requisite parts)  
| ☞ which is so good that nothing of the kind could be better  
| ☞ which has attained its purpose  
| Aristotle – Delta of the Metaphysics  
| Thomas Aquinas – Summa Theologica |

\^{18} SOURCE: Dr. Vishnu Kanhere's slides on pp. 54-62
Perfection – Origin:
The word perfection is derived from the Latin ‘perfectio’ (to finish) and perfect from ‘perfectus’. In turn, these expressions come from ‘perfectio’ which means the ‘culmination point’ or ‘to finish’ or ‘to bring to an end’. These Latin expressions have been a source of inspiration for the French, Spanish, English, Russian, Croatian, Servian, Czech Slovak and Polish languages. In fact the genealogy of the expression and concept of perfection originates from Greek where the equivalent of Latin ‘perfectus’ was ‘telcos’.

Delta of the Metaphysics – Aristotle:
However, the oldest definition of perfection is presented in Aristotle’s work ‘Delta of the Metaphysics’ where he has distinguished between three meanings, and therefore three different concepts of perfection as follows:

☞ which is complete – which contains all the requisite parts!
☞ which is so good that nothing of the kind could be better!
☞ which has attained its purpose!

For quite sometime, the word excellence which had its origin in Latin ‘excellentia’ and ‘perfection’ were used to denote something that is the best or held in high regard but with a difference. Whereas excellentia was identified as a distinction among many and necessarily implied a comparison, ‘perfectio’ was incomparable because anything which satisfied the condition of ‘perfectio’ was deemed perfect and its attributes did not merit or require comparison to other things.

Perfection is anything which completely achieves it purpose from perfect vision to a clock that runs neither runs slow or fast. Perfection is something which completely fulfils its function and is regarded as either ideal, model or approximate realisation of the model. Thus, perfection is used to convey
‘exellens’ of something which is admired viz. enjoyable, undefiled, without rebuke, without blemish, blameless, holy, unblamable and unreprovable. However, perfection can also denote condemnation or condemned (perfect idiot or perfect rascal).

According to Aristotle perfection meant ‘complete’ implying that nothing need be added or subtracted. To another philosopher Empedocles, perfection depended upon the extent of incompleteness where something could or needed to be added or subtracted. There was a potential for development and complementing the state of incompleteness with such additions and subtraction as would add value to reach a state of perfection. Such value addition would take place through an effort of mind and imagination.

Thus, it was viewed that perfection could be achieved if there was a motivation to develop so that the gap between the present incomplete state and state of perfection would be met. Continuous efforts are required because any cessation of efforts would only cause regression converting states of ‘syntropy into entropy’. There was also a school of thought which believed that perfection could be achieved through a variety of means such as natural development and progress, education, cooperation among people (teamwork) and overt intervention by the authorities.

Perfection – Different Disciplines Different Meanings:
The expression perfection has different meanings in different disciplines viz. mathematics, physics, chemistry, ontology, religion, medicine et al.

Perfection in Mathematics, Ontology and Theology:
The branch of metaphysics that deals with the nature of being


Exhibit 3: Definition of Ontology
Augustine of Hippo defined theology as “reasoning or discussion concerning the Deity” and Richard Hooker said theology is “the science of things divine”.

The expression ‘Delta’ in mathematics means ‘an increment of the variable’. In the alternate the expression ‘Epsilon’ is used to denote very small numerical quantities where delta is supposedly bigger than epsilon yet small. Thus, delta of the metaphysics refers to approximation to perfection through deltas and epsilons which help to transcend above and beyond excellence possibly at a snail’s pace because of the arduous, uphill journey. Perfection is defined as a case of ‘completeness and flawlessness’.

As per Ontology and Theology, perfection is endless (infinite), apparently excellence is not infinity and therefore the journey to perfection is via excellence through to reiterate, deltas and epsilons.

Thus, it is believed by a school of thought that in mathematics, excellence is synonymous with infinity and there can’t be any further achievement level beyond infinity. Hence, excellence is the zenith, pinnacle, peak or permissible maximum that can be achieved. However, other disciplines or approaches may not necessarily subscribe to this view.

Perfection in Chemistry:
In the field of chemistry, 100% yield (theoretical yield) which is rarely achieved in practice, can be called excellence but 100% yield of the desired product achieved with exact stoichiometric proportions of materials, exact
energy requirements and exact amount of side products can be called a perfection\textsuperscript{19}.

**Perfection in Physics:**

In physics, perfection can be identified with the process of entropy and syntropy. ‘Entropy’ is the natural proclivity of things (including social entities) towards decadence and disorder. In fact science identifies entropy as a second order of the law of thermo dynamics\textsuperscript{20} and is usually used as a metric to indicate that the energy of the system has reached a ‘nadir level’ which makes it totally unproductive and unable to contribute anything at all. Entropy is to be understood not in the physical sense alone. It is equally applicable to social systems and therefore concerns social entities too. If an organisation has reached certain levels of excellence, its energy levels have to be adequately renewed and rejuvenated to be deployed to sustain the momentum to push itself forward to the next level of achievement. Otherwise the achievement motivation of individuals and groups may lose the prowess to sustain the attained self-actualisation and therefore a state of entropy may pervade the entire organisation. To prevent entropy, the concept of RAABE had to be inducted into VPM’s GOI so that there is a new horizon which individuals and groups would want to herald and therefore the momentum of their achievement motivation could be then well sustained to keep the self-actualisation on. In turn, the depleted energy levels would be adequately restored to contribute to the activities that can help VPM’s GOI to RAABE. In short, VPM’s GOI would like to pre-empt entropy and initiate the process of syntropy in its respective institutions.

\textsuperscript{19}COURTESY: Dr. P. M. Kelkar, Dean, DR VN BRIMS

\textsuperscript{20}The second law of thermo dynamics states "Kelvin & Planck: "No (heat) engine whose working fluid undergoes a cycle can absorb heat from a single reservoir, deliver an equivalent amount of work, and deliver no other effect."
In physics, again, scientists started using the expression ‘a perfectly plastic body’ and ‘a perfectly black body’. For e.g. the latter was defined as “a body that absorbs completely, radiation falling upon it, thus having a coefficient of absorption equal to unity.” Similarly, a perfect fluid was defined as something which is incompressible and non-viscous circle.

**Perfection and the Biblical Doctrines:**

Plato developed the concept of good “as synonyms with perfection” believing that approximation to the idea of perfection would make people perfect. The Christian doctrine of perfection spelt out in the Gospels and also in the Bible, distinguishes between man and Almighty God by saying that “Be ye therefore perfect, even as your Father which is in heaven is perfect”. Hence, Almighty God is accepted to be omnipotent, omnipresent and omniscient.

There were some philosophers who identified perfection with God and said that “everything is the more perfect, the more it resembles God”. Still, this did not necessarily imply that God is perfect.
In fact, the history of the expression ‘Perfection’ has undergone great evolutions with the pendulum of thoughts swinging from “nothing in the world is perfect, not even God” to everything is perfect and from perfection is not an exclusive attribute of God to perfection is an attribute exclusive to God only.

**Perfection and Beauty and Art:**
The Greeks related perfection to beauty and high art and some identified perfection saying that the perfect proportion was the ‘ratio of the side to the diagonal of a square.’ This theorem was deployed for use in architecture and artistic work. Perfection also came to be perceived at par with ‘grace, prettiness and beauty’. Hence the theme that beauty consist in perfection and that this was why ‘beauty was a source of pleasure’. In fact, Keats a well-known poet had said in 1818 – ‘a thing of beauty is a joy forever’ (Endymion). Again, perfection is attributed as ‘quality’ something which is positive and absolute and expresses something without limits.

“When something is perfect, it exists with ease, it does not need any ‘alterations, modifications or changes’, it works on the harmony with environment. In the realm of science, in Perfection once the peak of perfection is reached, there is no further place for development. This is a problem since evolution by it’s very name and nature means slow change over time of one organism into another. Human race is attracted to the theme of perfection and constantly strives for perfection which in itself sets higher goals for achievement”.

**Exhibit 5: Ernst Mayr in Science of Perfection**
Perfection in Business – A View in Favour of Perfection:

In business where continuous maximisation of profit is the key universal objective, no level of profit is really satisfying. Hence, all over the world enterprise is interested in attaining and sustaining higher and higher levels of performance year on year basis to achieve the said profit maximisation objective. With a view to achieve the profit objective different companies offer different motivational slogans to motivate the human resources of an enterprise to contribute to higher and higher levels of output. In fact through various management tools and techniques pressure is brought on human resources to elicit goal directed behaviour where the goal itself, albeit shifting to higher levels, is defined explicitly in financial terms. Thus, Lufthansa Cargo has a mission statement which reads as follows:

Perfection is the objective
Excellence will be tolerated
- Lufthansa Cargo – Mission Statement

This clearly indicates that the company perceives excellence as the modicum level which has to be surpassed in order to justify rewards which may apply only to those who surpass or exceed the levels of excellence. The statement thus attempts to goad individuals and groups to higher and higher levels of performance beyond excellence. Different companies have different slogans and strategies to ensure that higher and higher profit motivation is well sustained on an ongoing basis. Thus, perfection and excellence are two
different horizons, on a continuous thought with excellence being achieved (or compulsory as the modicum a la Lufthansa) en route perfection.

**Six Sigma and Perfection:**

Initiated by Motorola in 1986, another tool used in contemporary times is ‘**Six Sigma**’ which tries to build excellence in an organisation. According to Motorola, Six Sigma is simultaneously a metric, a methodology and a management system. The term “**Sigma**” is often used as a scale for levels of “**goodness**” or quality. Using this scale, “**Six Sigma**” equates to 3.4 defects per one million opportunities (DPMO). Therefore, Six Sigma started as a defect reduction effort in manufacturing and was then applied to other business processes for the same purpose.

As an improvement over six sigma which provides for some tolerable deviations vis-a-vis no error situation, there is another tool which is known as Zero Defects and is defined as “an aspect of total quality management that stresses the objective of error-free performance in providing goods or services.”

Thus, six sigma is excellence. Zero Defects is perfection. Algebraically, we may say that:

Excellence = perfection - Δ or epsilon (yet flaws to be corrected or eliminated).

Perfection = excellence + Δ or epsilon (flaws duly corrected or eliminated).

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21 **SOURCE:** [http://www.motorolasolutions.com/web/Business/_Moto_University/_Documents/_Static_Files/What_is_SixSigma.pdf](http://www.motorolasolutions.com/web/Business/_Moto_University/_Documents/_Static_Files/What_is_SixSigma.pdf)

Sigma (or $\sigma$) is a statistical concept that represents how much variation there is in a process relative to customer specifications.

- The Process Sigma value is based on “defects per million opportunities.”
- “Six Sigma” is equivalent to **3.4 defects per million**

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<thead>
<tr>
<th>Too much Variation</th>
<th>Hard to produce output with customer requirements (specifications)</th>
<th>Low sigma values (0–2)</th>
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<tr>
<td>Moderate variation</td>
<td>Most output meets customer requirements</td>
<td>Middle sigma values (3–5)</td>
</tr>
<tr>
<td>Very little variation</td>
<td>Virtually all output meets customer requirements (less than 4ppm outside specifications)</td>
<td>High sigma values (6)</td>
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Six sigma and Zero Defects in juxtaposition provide for pragmatic, positive and proactive examples of the difference between Perfection (Zero Defects) and excellence (six sigma). Perhaps, further exposition of the difference which is not subtle but substantial and real is a work of supererogation. It is apparent, that when it is said that excellence is a journey and not a destination. Thus, then there are journeys to be performed even beyond excellence in terms of higher and higher levels of accomplishments, in all walks of life, maybe, leading to perfection.

Once again enterprises need to activate the process of syntropy to provoke the inner impulse towards higher and higher achievement motivation levels and greater and greater energies through sustained self-actualisation with a view to transcend beyond excellence and drive individuals and groups towards perfection. As Abraham Maslow says, "**What one can be, one must be.**"

"**If one advances confidently in the direction of his dreams, and endeavours to live the life which he has imagined, he will meet with a success unexpected in common hours. He will put some things behind, will pass an invisible boundary: new, universal, and more liberal laws will begin to establish themselves around and within him; or old laws will be expanded and interpreted in his favor in a more liberal sense, and he will live license of a higher order of beings.**"

– **Henry David Thoreau**
Perfection in Business – A View Against Perfection:

In business, perfection is something which at times is deemed as not desirable. In fact, the saying goes that eliminate the idea of perfection and business productivity can soar. Perfection may impede completion of tasks on time and create feelings of inadequacies. Thus, excellence is viewed as attainable and is always more than adequate or good enough. Further, it is believed that perfection is something which can never be really attained. Thus, in business while pursuing perfection one may not only fail but also land up in situations where there is nothing to show regarding the efforts made. Perfection may also distort and defile the concept of balance or optimality. In trying to be perfect in mathematics, extra effort put in may not result in commensurate extra marks. Instead if the effort was invested in other subjects the aggregate score may be more. Thus, the law of diminishing returns may get applied to the process of striving for perfection and the incremental time, money and effort may not bring commensurate results on an incremental basis. Hence, in business pursuing excellence is regarded as better and more viable than striving for perfection.

Of course, excellence itself is a benchmark, high enough, to prevent cause for any concern. In fact, the concerns are perceived as zero. The choice between perfection and excellence also depends upon the question - perfection for which item? The manufacture of a surgical instrument or an atom bomb requires more perfection than a spoon or a X'mas hat. It is not bad per se to strive for perfection. The question is of worthwhileness and affordability vis-a-vis the extra inputs involved particularly when decisions have to be taken in deceasing response time using a cost-benefit frame. Keeping in mind this dimension of business, perfection means setting realistic impactful goals and achieving the same. Perfection also means identifying opportunities, seizing them and then experimenting, responding and iterating based in feedback. In
short, it means, a series of shorter deadlines, well met. The usual solution for goal setting is to set SMART goals i.e. to say goals which are specific, measurable, attainable, realistic and timely. If SMART goals are set and achieved, the situation is as approximate to perfection as possible. Even in business the expression perfection has undergone evolution through various levels of attainment of completeness and achievement of purpose. One school believes that perfection is just not attainable and hence need not be strived for. Excellence is just enough and it means being extra-ordinary and invariably the ‘extra’, over and above the ordinary, is not easy.

Another dimension to perfection is experience imperfection from time to time. To quote, Michael Jordan “I’ve missed more than 9,000 shots in my career; I’ve lost almost 300 games; 26 times I’ve been trusted to take the game – winning shot – and missed. I’ve failed over and over and over again in my life. And that is why I succeed.” The flip side of perfection is that there is disconnect between the perception of oneself vis-a-vis achievement of perfection and their position when they are not able to achieve perfection. This disconnect is psychologically devastating leading to emotional stress and its inevitable concomitant viz. stress disorders leading to many physical ailments including psychosomatic disorders. Absence of failure provides the necessary syntropy so long as perfection is attained on a continuous basis. However, arrival of failure creates a state of entropy in the psyche of the persons and rejuvenation is very arduous and painful process. Thus, business leaders perceive striving for perfection as a positive thought with its own negative trail in terms the following:

- slow down of innovation and launch of new products due to endless finesse in which the customer may not be interested and also may not willing to pay
late entry into the market instead of rushing to seize in open space and thus adversely affecting the pricing policies because late comers cannot charge premium price

absence of feedback from the customers at the initial stage thus preventing customisation. The important message is that enterprise can make money in business by giving customers only what they want, not necessarily more than they want. “Perfection is certainly a noble aim, but in business not always a wise one. Sure, aim high, but get it out the door fast. You’ll quickly discover what customers really desire and likely make more money to boot. They say fortune favors the brave. I think it favors the fast.”

MANAGEMENT DEVELOPMENT CONFERENCE
FOR VPM’S GROUP OF INSTITUTIONS (GOI)
HEADS OF INSTITUTIONS / DEPARTMENTS

CONFERENCE THEME

Rising Above and Beyond Excellence (RAABE) in VPM’s GOI

Friday, 14th June, 2013 : 10:00 am to 5:30 pm
Saturday, 15th June, 2013 : 10:00 am to 5:30 pm

Participants’ Presentation
Saturday, 29th June, 2013

Participants’ Presentation : 10:00 am to 3:45 pm

Followed by Valediction Program

Dr. V. N. Bedekar Institute of Management Studies

VENUE :
(DR VN BRIMS), Bldg. No. 4, Room No. 10 (First Floor)
## DAY ONE (Friday, 14th June, 2013)

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| 1       | 10:10 am to 12:15 pm | ☞ Academic Excellence: Concepts and Models  
☞ Ramkrishna Bajaj Award in Education | Dr. Vishnu Kanhere                   |
| 2       | 12:15 pm to 12:30 pm | TEA BREAK                                                             |                                        |
| 3       | 12:30 pm to 1:30 pm  | Role of Library in Rising Above and Beyond Excellence  
☞ Creativity and Innovation in Library Services  
☞ State of the Art Library - Services and Practices | Mr. Narayan Barse  
Mr. Santosh Chaturbhuj  
Mr. Sandeep Bhavsar |
| 4       | 1:30 pm to 2:15 pm  | LUNCH                                                                 | Ms. Sukhada Tambe  
Dr. S. Savanur  
Dr. R. Athalye and Ms. M. Gholba |
| 5       | 3:15 pm to 3:30 pm  | TEA BREAK                                                             |                                        |
|         | 3:30 pm to 5:30 pm  | Creativity and Innovation in Education                              | Dr. S. Agarkar  
Dr. (Ms.) Parvathi Venkatesh  
Dr. P. M. Kelkar |
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<td>6</td>
<td>10:00 am to 11:00 am</td>
<td>Resource Management in Educational Institutions</td>
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<td>11:00 am to 12:00 noon</td>
<td>Decision Making in Educational Institutions</td>
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<td>12:00 noon to 12:15 pm</td>
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<td>8</td>
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<td>1:15 pm to 2:00 pm</td>
<td>Examination System – To Facilitate Improvements in Education</td>
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<td>LUNCH</td>
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<td>9</td>
<td>2:00 pm to 3:00 pm</td>
<td>What Education is and What Education Ought to be?</td>
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<td>3:00 pm to 3:15 pm</td>
<td>TEA BREAK</td>
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<td>10</td>
<td>3:15 pm to 5:30 pm</td>
<td>Strategic Management</td>
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Rising Above and Beyond Excellence (RAABE) in VPM’s GOI

Participants’ Presentation
Saturday, 29th June, 2013

<table>
<thead>
<tr>
<th>Group</th>
<th>Duration</th>
<th>Topic</th>
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<tr>
<td>1</td>
<td>10:00 am to 10:30 am</td>
<td>Models of Excellence for VPM’s, Thane Science College - GROUP 1</td>
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<td>10:30 am to 10:45 am</td>
<td>Discussion</td>
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<td>2</td>
<td>10:45 am to 11:15 am</td>
<td>Models of Excellence for VPM’s, Thane Commerce College - GROUP 2</td>
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<td>11:15 am to 11:30 am</td>
<td>Discussion</td>
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<td>3</td>
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<td>TEA BREAK</td>
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<td>3</td>
<td>11:45 am to 12:15 pm</td>
<td>Creativity and Innovation in VPM’s, Thane Science College - GROUP 3</td>
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<td>12:15 pm to 12:30 pm</td>
<td>Discussion</td>
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<td>Creativity and Innovation in VPM’s, Thane Commerce College - GROUP 4</td>
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<td>Discussion</td>
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<td>1:15 pm to 1:45 pm</td>
<td>LUNCH BREAK</td>
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<td>5</td>
<td>1:45 pm to 2:15 pm</td>
<td>How to Improve Productivity at Place of Work in VPM’s, Thane Science College - GROUP 5</td>
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<td>2:15 pm to 2:30 pm</td>
<td>Discussion</td>
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<td>6</td>
<td>2:30 pm to 3:00 pm</td>
<td>How to Improve Productivity at Place of Work in VPM’s, Thane Commerce College - GROUP 6</td>
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<td>3:00 pm to 3:15 pm</td>
<td>Discussion</td>
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<td></td>
<td>3:15 pm to 3:45 pm</td>
<td>Open Forum: Plenary Session - How can I improve my Effectiveness at Place of Work at VPM’s, Thane Science College and Commerce College</td>
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<td>3:45 pm to 4:00 pm</td>
<td>TEA BREAK</td>
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|       | 4:00 pm onwards        | Valediction Program
Former CEO of i-flex Solutions and currently into Biotechnology field |

Management Development Conference for
<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>4:00 pm to 4:10 pm</td>
<td>Welcome Address</td>
<td>Shri. M. Y. Gokhale Trustee &amp; Treasure VPM, Thane</td>
</tr>
<tr>
<td>4:10 pm to 4:25 pm</td>
<td>From Here to Where?</td>
<td>Dr. (Ms.) Madhuri Pejaver Principal, VPM’s B. N. Bandodkar College of Science</td>
</tr>
<tr>
<td>4:25 pm to 4:40 pm</td>
<td>From Here to Where?</td>
<td>Dr. (Ms.) Shakuntala Singh Principal, VPM’s K. G. Joshi College of Arts and N. G. Bedekar College of Commerce</td>
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<tr>
<td>4:40 pm to 4:50 pm</td>
<td>Our Learnings from the Conference and Presentation</td>
<td>Participants from Science College</td>
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<tr>
<td>4:50 pm to 5:00 pm</td>
<td>Our Learnings from the Conference and Presentation</td>
<td>Participants from Arts and Commerce College</td>
</tr>
<tr>
<td>5:00 pm to 5:30 pm</td>
<td>Valedictory Address</td>
<td>Mr. Deepak Ghaisas Former CEO of i-flex Solutions and currently into Biotechnology field</td>
</tr>
<tr>
<td>5:30 pm to 5:45 pm</td>
<td>What Next?</td>
<td>Dr. Guruprasad Murthy Director General DR VN BRIMS</td>
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<td>5:45 pm</td>
<td>Vote of Thanks</td>
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From the Chairman’s Desk
It is with profound pride and pleasure that I welcome all participants – Heads of Departments of VPM’s B. N. Bandodkar College of Science and VPM’s K. G. Joshi & N. G. Bedekar College of Arts & Commerce to this management development conference on **RAABE in VPM’s GOI**. Over the years, VPM, Thane GOI have established a reputation in their own right and moved steadily from strength to strength. Excellence is no longer an ideal destination – on the contrary it has become the modicum level of accomplishment to survive in the field of education. Hence, the theme of the conference. We are not interested in mere survival. We are interested in being an important constituent and contributor to the process of change taking place in the world due to liberalisation, privatisation and globalisation. In addition, Information and Communication Technology (ICT) is playing its own role and has facilitated not only the dawn but the progress of a knowledge society. Given the prowess of ICT and the emergence of a knowledge society, educational institutions have an important role to play in all round societal transformation. VPM, Thane GOI will have to ride at the crest of the wave of the knowledge society. Moreover, education and economic development are inextricably interlinked and VPM, Thane GOI which are posit as learning organisations will have to forge and contribute their mite, through their vision, mission and goals, to the process of rapid economic development and the concomitant societal transformation. I would like this to happen with greater gusto and gumption than ever before and hence, we need to go ahead to unravel unexplored paths and horizons uncharted, above and beyond excellence. Looking at the achievement so far, our B. N. Bandodkar College of Science as well as K. G. Joshi & N. G. Bedekar College of Arts & Commerce has been reaccredited ‘A’ Grade by NAAC and awarded as ‘Best College’ by University of Mumbai respectively. These institutions along with others are not only jewels in the crown of VPM, Thane but are undoubtedly, the cynosure of all eyes in the University of Mumbai. In the circumstances, rather
than basking in the glories of the past I want VPM, Thane GOI to take a lead in transcending above and beyond the levels of historic attainments which undoubtedly, I repeat, are excellent.

Towards, this end we have been exploring the possibility of holding a conference of Principals and Heads of Departments from different disciplines of VPM’s B. N. Bandodkar College of Science and VPM’s K. G. Joshi & N. G. Bedekar College of Arts & Commerce to assess and ascertain the nature and extent of change that can be brought about in the present mode of operation, given the existing regulatory framework, to deliver increasingly value added inputs to all stakeholders and thus continue to establish an indelible, immutable as well as inimitable mark on the society. We would then have really transcended beyond the realms and contours of excellence. This is the main purpose of the conference of 14th and 15th June, 2013 which will discuss, deliberate and debate various facets of higher education viz. academic excellence models, creativity and innovation, teaching learning processes, decision making, resource utilisation and productivity and quality issues along with the role of adjunct but important inputs of viz. the library and ICT. There will also be inputs on Strategic Management which will guide us as to how to convert our invaluable resources – time, money, effort into tangible, verifiable, globally acceptable value adding results. Thus, the conference would like to generate ideas, capture them, convert implicit thoughts and knowledge into explicit ones that can be actioned for implementation by our teachers to lead our institutions to the new vistas by doing the same work which they did previously in a different manner and venture to add value to all stakeholders. In addition, I expect that in future we will be able to offer value added high ended course which can raise the intellectual equilibrium of VPM, Thane GOI and also all other stakeholders. I strongly commend this course for all of you and request each one of you to take full advantage of this opportunity for stimulating your intellectual process and explore your own
resources, initiative and capabilities when you go back to your respective work places fully charged and loaded with new ideas to be triggered into action to raise VPM’s B. N. Bandodkar College of Science and VPM’s K. G. Joshi & N. G. Bedekar College of Arts & Commerce, in all spheres of the institutions’ activities, to new levels of invincible attainment. For VPM, Thane GOI, the past was great, no doubt, but I want the future to be glorious still and our teachers and students will indeed play a leading role in this seamless journey beyond excellence. It is said in a report of the Government of India.

“Twenty first century will be the century of knowledge. Only those nations will survive and succeed, which will build themselves by understanding the dynamics of knowledge and create true knowledge societies”. I want the VPM, Thane GOI not only to survive but to succeed in the mission of building a great future for posterity.

I wish you Good Luck!!! and also congratulate the Principals of VPM’s B. N. Bandodkar College of Science and VPM’s K. G. Joshi & N. G. Bedekar College of Arts & Commerce for taking the initiative in launching this course at the start of the academic year which will help the respective institutions to take the big leap forward with success.

Dr. Vijay V. Bedekar
Chairman
VPM, Thane

Date: 1st June, 2013
<table>
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<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
<tr>
<td>Dr. (Ms.) Madhuri Pejaver</td>
<td>Principal and Head of Department of Zoology</td>
</tr>
<tr>
<td>Dr. (Ms.) M. Mulgaonkar</td>
<td>Head of Department of Botany and Associate</td>
</tr>
<tr>
<td>Dr. (Ms.) N. Patil</td>
<td>Professor, Department of Zoology</td>
</tr>
<tr>
<td>Dr. R. Athalye</td>
<td>Associate Professor, Department of Zoology</td>
</tr>
<tr>
<td>Mr. A. Patil</td>
<td>Head of Department of Statistics and Associate</td>
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<tr>
<td>Ms. M. Gholba</td>
<td>Professor, Department of Statistics</td>
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<tr>
<td>Ms. M. Wankhede</td>
<td>Head of Department of Mathematics and Associate</td>
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<tr>
<td>Dr. (Ms.) A. Goswami-Giri</td>
<td>Assistant Professor, Department of Chemistry</td>
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<tr>
<td>Dr. (Ms.) K. Mulye</td>
<td>Assistant Professor, Department of Biotechnology/</td>
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<tr>
<td>Mr. A. Patil</td>
<td>Professor, Department of Statistics</td>
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<tr>
<td>Ms. M. Wankhede</td>
<td>Environmental Science</td>
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<tr>
<td>Ms. J. Pawar</td>
<td>Assistant Professor, Department of Biotechnology/</td>
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<tr>
<td>Mr. S. Bhosale</td>
<td>Foundation Course and Assistant Professor</td>
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<tr>
<td>Mr. A. Kale</td>
<td>Incharge and Assistant Professor</td>
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<tr>
<td>Ms. Aditi Deuskar</td>
<td>Counselor</td>
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<tr>
<td>Dr. (Ms.) Shobha Doshi</td>
<td>Associate Professor, Department of Philosophy</td>
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<tr>
<td>Ms. Smita Bhide</td>
<td>Head of Department of Mathematics-Statistics and Computer and Associate Professor</td>
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<tr>
<td>Dr. Deepak Sable</td>
<td>Head of Department of Economics and Assistant Professor</td>
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<tr>
<td>Mr. D. Ghadi</td>
<td>Assistant Professor, Department of Accountancy</td>
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<tr>
<td>Mr. Damodar Morey</td>
<td>Head of Department of Marathi and Assistant Professor</td>
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<tr>
<td>Mr. Deepak Murdeswar</td>
<td>Department of Self-Finance and Assistant Professor</td>
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<tr>
<td>Mr. Pramod Kharate</td>
<td>Head of Department of English and Assistant Professor</td>
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<tr>
<td>Ms. Rashmi Agnihotri</td>
<td>Head of Department of Commerce and Assistant Professor</td>
</tr>
<tr>
<td>Mr. Subhash Shinde</td>
<td>Vice-Principal, Head of Department of History and Assistant Professor</td>
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<tr>
<td>Ms. Swati Bhalerao</td>
<td>Assistant Professor, Department of Sanskrit</td>
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<tr>
<td>Mr. Narayan Barse</td>
<td>Librarian</td>
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<td>GROUPS</td>
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<td>GROUP 1</td>
<td><strong>Assignment 1 – Academic Excellence Models</strong></td>
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<td>Mr. V. Burkule</td>
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<td>Dr. M. Nyayate</td>
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<td>GROUP 2</td>
<td><strong>Assignment 1 – Academic Excellence Models</strong></td>
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<td>Mr. A. Patil</td>
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<td>Dr. (Ms.) M. Mulgaonkar</td>
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<td>GROUP 3</td>
<td><strong>Assignment 2 – Creativity and Innovation in Education</strong></td>
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<td>Ms. M. Wankhede</td>
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<td>Dr. (Ms.) Madhuri Pejaver</td>
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<td>GROUP 4</td>
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<td>GROUP 5</td>
<td><strong>Assignment 3 – Productivity and Quality at the Work Place</strong></td>
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<td>Dr. (Ms.) A. Goswami-Giri</td>
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<td></td>
<td>Mr. Dilip Shenai</td>
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<td>Dr. R. Athalye</td>
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<td>GROUP 6</td>
<td><strong>Assignment 3 – Productivity and Quality at the Work Place</strong></td>
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Talking about the theme of the conference ‘RAABE’, Dr. Guruprasad Murthy stressed on the relevance of the theme in today’s context for educational institutions. For quite some time, nearly two years now, Dr. Vijay V. Bedekar, Chairman, VPM, Thane wanted to initiate the thought of identifying ways and means of transcending and moving, above and beyond excellence, to provide new extended horizons to VPM’s GOI.

Dr. Bedekar, in consultation with Dr. Murthy and the Heads of VPM’s GOI, took the step of launching a conference in June, 2013 on the theme ‘RAABE’, for the two leading VPM’s Institutions viz. B. N. Bandodkar College of Science and K. G. Joshi College of Arts and N. G. Bedekar College of Commerce.

Dr. Murthy designed the course and also ventured to prepare the reading material and developed relevant case materials by way of assignments to ensure that the outcomes of the conference were as effective as possible. Further, the conference was spread over two days viz. 14th and 15th June, 2013 and was followed by a full day presentations on 29th June, 2013, by participants, on critical dimensions concerning the call for ‘RAABE’. The agenda of the conference for two days and presentations scheduled for 29th June, 2013 is presented in on pp. 38-40.

Very coincidently, a book on the same theme viz. ‘Above and Beyond: Excellence’ was already published by an author Harriet Goldin – in the year 2010.
Further, Dr. Murthy added that through the exchange of one another’s know-how, among 30 participants inter-se, there will be a lot of value addition, in the course of the deliberations of the conference. Again, the presentations scheduled for 29th June, 2013, were to be made by groups which were an admixture of teachers from VPM’s Science as well as Arts and Commerce college.

Dr. Vijay V. Bedekar presented an overview of the theme of the conference. ‘RAABE’ was extremely important and if someone is not up to the mark replacement is inevitable. Since the environment for educational institutions is undergoing rapid and radical change, ability to adapt to and adopt change becomes a critical factor.

Expectations are changing; syllabi are changing; examination patterns are changing and almost every dimension of education is changing. Hence, every stakeholder should posit a positive attitude to absorb change. Management is an important discipline and the scientific principles governing management should be understood and discriminately used for successful results. At the outset, it is necessary to understand the ‘management lingo’ and then one should understand the basic steps of any management process viz. planning, organizing, direction, control, motivation et al. It is then possible to imbibe management principles and apply them across the network of any organisation. The whole idea of the conference is to encourage interaction among participants and explore the possibility of applying management principles in the respective institutions across departments of different disciplines and different faculties. In current times, transparency is the order of the day because of the rising expectations of society, new legislations like
Right to Information Act and above all the progress of information and communication technology. Hence, it is necessary for us to deliberate among ourselves as to what more should we, or can we do and equally important is to ponder about what we should discontinue or diminish in extent, if we have to match our end results with the call of RAABE as also the dictates of the market, customers and other important constituents educational institutions. Can we gear ourselves in time to come through rejuvenated mindsets to successfully address the challenges of RAABE?

Finally, Dr. Bedekar concluded by appreciating the efforts taken by Dr. Murthy and his team.
Dr. Vishnu Kanhere initiated his presentation with Shlokas (Sanskrit verses) of Lord Ganesh and the Vandana (Prayer) of Goddess Saraswati. He explained the meaning of Shlokas and the relevance of the same in today’s context and said that teachers should elevate and exalt themselves to reach the supreme. People have spent their lives to find ‘PARAS’ (philosopher’s stone which has the potential of converting anything into gold that is to say the Midas touch). He added that it is possible to extend beyond newer and newer horizons by setting a target; achieving it, then again setting it higher and try to achieving that too.

He quoted the Upanishad Mantra and Gayatri Mantra shed light on different concepts from Indian Heritage. GURU may be a Friend, a Philosopher, a Guide, and a Mother too. The role of a teacher is that of a ‘Yojaka’ (Planner), he said. He reminded the audience of the stories of Eklavya, Karna and Arjuna from Mahabharata and he opined that the teachers should reach out to students with their knowledge and skills to enlighten them. Again, the best teachers get the best students. Talking about excellence, he quoted the story of Dronacharya and his son Ashwatthama and shared the thought that unless one knows what is excellence the same cannot be achieved. Shishya may follow the Guru symbolically as Eklavya in Mahabharata. This inspiration and thought is very important while executing tasks.
He recapitulated the story of Arjuna from Mahabharata—‘The Bird’s Eye View’ (see Exhibit 8) and opined that concentration and unity of purpose are indispensable for achieving excellence.

One day Drona, organized a competition to test their concentration. Across a stream, Drona set up a small wooden bird in a tree. He said, “today I want to see who among you can strike the eye of that wooden bird across the river.”

The bird appeared tiny from where they were standing, but the boys were confident that they could pass their teacher’s test.

Yudhisthira was called upon first. “Can you see the bird properly? Tell me everything you can see.

Yudhisthira began to list off everything that he saw:

“Wooden bird, branch, tree, leaves, moving birds, stream, grass, other trees, sky…….”

Drona told him to “Put down your bow and take a seat Yudhisthira, you will not hit the eye of the bird.”

Arjuna was next. “Tell me what you can see, Arjuna,” repeated Drona.

“I can see only the eye of the bird,” replied Arjuna without breaking eye contact with his target.

“Can you not see the trees and the sky…….? He reiterated, as follows.

“No sir, all I can see is the eye and nothing else,” he said, holding his bow steady and maintaining his unwavering gaze.

With a loud twang, the arrow sprang from the bow straight into the bird’s eye. A perfect shot.

Drona told his students “Now you see, young princes, the power of concentration...”

Exhibit 8: The Bird’s Eye View
Then he explained the relationship between:

Excellence means something is so good that nothing of the kind could be better – something that has attained its purpose.

Dr. Kanhere then presented the roadmap of excellence. He said that students should identify the spark and create the necessary enthusiasm and drive. Further, students should be motivated to learn and the teaching learning process should encourage creativity and innovation. He further opined that benchmarking, both internal and external, will have to be used to reach new horizons and also to fulfill expectations of stakeholders.

Dr. Kanhere further said any teacher can ignite the spark because a student sees, emulates and enacts. Talking about student-teacher relationship, he said that the relationship should be positive, proactive, productive and cohesive. There has to be a bonding based on mutual trust and respect. He said that Information + Communication => Teaching Learning Process (TLP)
In a presentation spread over 49 slides, Dr. Vishnu Kanhere has presented a very wide canvas of the theme ‘Academic Excellence: Concepts and Models’. Dr. Kanhere addressed key issues which included teaching – learning process, communication, change agents, the changing face of humanity interface the change in face of academics, the new skill areas for teachers along with emerging technologies and applications. Dr. Kanhere also identified certain important factors to be kept in mind to rise above and beyond excellence borrowing from Harriet Goldin’s book. Dr. Kanhere dealt with the criteria factors used by National Board of Accreditation (NBA), National Assessment and Accreditation Council (NAAC), IMC Ramkrishna Bajaj National Quality Award (RBNQA), European Quality Award (Eur QA) is now referred to as the European Foundation for Quality Management (EFQM) Excellence Award, Australian Quality Award (Aus QA) and Academic Ranking of World Universities (ARWU). The slides presented are self-explanatory and provide insights into Dr. Kanhere’s thoughts the way it was presented at the conference.
Academic Excellence: Concepts & Models

CA Dr. Vishnu Kanhere

B.Com (Hons), FCA, FCMA, FEV, FLB (London), Ph.D (Management Studies), CRISP, CISA, CISM, CRISC, CGEIT, ISO QMS & ISO FSMS Auditor INCA(UK).

Member R&R Committee Guj Tech Univ, Head Examiner & Chief Moderator ICWAI, Member Board of Studies, NMIMS Univ, Member Task Force on IT Syllabus, ICFAI, Topic Leader ICACE(USA), Member Syllabus Revision Committee, Univ of Mumbai, Expert Member JNTU (B.Tech. B.S) Govt. of India, Member Committee on Vocational Education, DTE, Govt. of Maharashtra, Sr. Examiner & Team Leader, IAC-BRNQA Governing Board Member - VHREIKS, Convener - ISO, CSE

Rising Above & Beyond Excellence, 14th June 2013, VPM Group of Institutions, Thane

Saraswati Vandana

Upanishad Mantra

• "Aum Asato mā sad gamaya
  Tamaso mā jyotir gamaya
  Mṛtyormā amṛtam gamaya
  Aum śānti śānti śāntiḥ"
  (Brhadāranyaka Upaniṣad 1.3.28)
• Lead me from the asat to the sat.
  Lead me from darkness to light. Lead me from death to immortality.

Gayatri Mantra

• "Om Bhur Bhuva Svah Tat
  Savitur Varenyam Bhargo
  Devasya Dhimaḥ Dhiyo Yo
  Naha Prachodayat (Rig Veda 3.62.10)
• On the absolute reality and its planes, On that finest spiritual light, We meditate, as remover of obstacles That it may inspire and enlighten us.

Concepts from Indian Tradition

• Guru – Friend, Philosopher, Guide, Mother, Yojaka
• Shishya – Ekalavya, Karn, Arjun
• Knowledge – Skill, Wealth, Enlightenment
• Tatkarma Yanna Bandhaaya
  Sa Vidya Ya Vimuktaye
• Aaya Saaya Param Karma, Vidyaanya Shilpa Naipunam

« Vishnu Purana 1.19.41

The Real World
The Quest for Rising above & beyond excellence – a roadmap

- To know what is excellent
- To identify the spark
- To create enthusiasm and drive

Information?


“Information is knowledge communicated concerning some particular fact, subject or event” – Oxford English Dictionary.

“Information is data recorded, organized, related or interpreted within context to convey meaning” – S.C. Blumenthal in ‘Management Information Systems’, 1969
Communication...

The word ‘Communication’ originated from Latin word ‘Communis’ meaning ‘Common’.

“Communication is imparting, conveying or exchanging of ideas and knowledge whether by speech, writing or signs” – Oxford English Dictionary.

“Communication is the transfer of thoughts and message as contrasted with transportation of goods and persons” – Columbia Encyclopedia of Communication.

Communication...

Non-Verbal

Signals – Traffic signals, Drum beats
Signs – Traffic signs
Symbols
Gestures – Facial expressions, Body language

Communication...

Verbal Communication...

The first phase - origination of languages,
Second phase - written communication (record and store the information)

Cave paintings,
Clay tablets,
Ink, papyrus etc.

A Babylonian clay tablet from 87 B.C. reports the arrival of the comet now known as Halley.


Communication... (Verbal)

The third phase - the printing era began with Gutenberg and his Bible in 1456.
The fourth phase - the age of telecommunications began with Morse’s telegraph and was perpetuated by Marconi’s wireless.
Now we are in fifth phase where communication is playing a major role in interactive communication systems.

ICT – the next revolution

Characteristics
• Efficiency
• Effectiveness
• Enhancing Quality
• Evidence based
• Empowerment
• Encouragement
• Education
• Enabling
• Extending
• Ethics
• Equity

Impact
• Business
• Finance
• Manufacture
• Medicine & Health
• Politics, Media, people’s voice
• Entertainment
• Education
• Organization & Management
• Research & Development
• Transportation
• War, Crime & Laws

The Change Agents ... 1

Push Factors

Technological Changes
ICT Revolution
Convergence
World Wide Web
Improved Transportation
Globalized Supply Chains

Source: Gunther Eysenbach (2001)
The Change Agents ... 2

Pull Factors
Global Standards .... International Organization for Standardization (ISO), World Association of Universities and Colleges (WAUC), The Association of MBAs (AMBA), ..
World Bodies .... United Nations (UN), International Bureau of Education (IBE) …
Global Interaction & Exchange
Liberalization

The Change Agents ... 3

World - Global Village
TV / Media – Demonstration effect
Consumerism and consumer Culture
Competition and International availability of Goods and Services
Disintermediation
Short fuse wire of Decisions

Economy ...

Knowledge Economy
Industrial Economy
Agrarian Economy
Economy Continuum

Academics and Education need to be
• of the people
• for the people
• by the people

Interrelated Issues

Poverty
Digital Divide
Environment
Gender Equality
Human Right
Hunger, Malnutrition
Corruption

The E’s in Education
 ✓ Enabling
 ✓ Empowerment
 ✓ Enacting
 ✓ Ethics
 ✓ Empathy
 ✓ Excellence, and
 ✓ Environment
 ✓ Electrifying
Knowledge Economy Index –
a long way to go for India

Note: Countries above the 45 degree line have improved their position in the KEI for the most recent period relative to their position in 1995 (or closest available date in the mid-90s), and vice versa for countries below the line.
The Changing Face of Humanity

Traditional
One to one
Human skills
Personalized
Emerging
Many to many
ITES
Mass customization

The Changing Face of Academics

Traditional
Role
Expectation
Tools
Emerging
Role
Expectation
Tools

Causes of Change: Push Factors
- The way things are produced
- The way business is done
- The way organizations work
- The way markets behave
- The way customers interact
- The way customers use things

Expectations
- Realization of inadequacies of existing Education Systems
- Need for transparency
- Establishing accountability
- Integrity and Availability of information
- Benefits to the stakeholders

External factors
- Increasing risks - internal and external
- Uncertainty and volatility
- Growing roles and expectations,
- Short fuse wire of decisions and events
- Global impact

Structural Changes
- Globalization
- Corporatization
- Dis-intermediation
- Evolution of education policy, best practices and procedures
- Changes in laws and Government policies
Globalization - Opportunities

- Tremendous Scope for growth and Development
- Opened up untapped markets for teeming labour force and intellectual capital
- Areas of Competitive advantage will give us growth
- Areas where we lack we will leapfrog into the 21st Century

Present

Owners
Students
Other external entities
Partner
Institutions
Public
Regulatory
Authorities
Government
College
Management
& Staff

GLOBALLY

THINK

ACT

LOCALLY

Interaction Opportunities

Training outfits
Universities Abroad
Indian Institutions
UNIV’s in India
Competitors
Colleges abroad
Teachers, Faculty
& Consultants
Colleges in India
Government

Knowledge Underpinning of All Economies

“Globalization has changed us into a company that searches the world, not just to sell or to source, but to find intellectual capital – the world’s best talent and greatest ideas.”

-- Jack Welch, Former Chairman GE
Teacher as an Entrepreneur or Professional Entrepreneur

Requires

✓ Conceptual Skills, Multi Faceted, Versatility, Delegating, Managerial Skills, Computer related know-how and Enterprise

Emerging Technologies and Applications

• Augmented Reality, Civilization Changes, Workplace Changes, Cloud computing and Unconventional Outlook

Conclusion and Way Forward

• Good knowledge and understanding of changing paradigm of education
• Information Technology (IT) is technology, therefore, Learning, Assimilating, Understanding & mastering IT is essential
• \( L \geq C \) is a requirement to survive & succeed
• Creativity and Innovation in use of IT to stay ahead of competition.
• Ethics, moral base, professionalism, competence, independence and proactive pragmatism – instill confidence and respect in the public
• Global outlook and local reach – The nature of success

PEARLS OF WISDOM Following WARREN BUFFET – INVESTOR PAR EXCELLENCE

• In the (knowledge world) Teaching Profession, the rear-view mirror is always clearer than the windshield.

• Only when the tide goes out do you discover who's been swimming naked.

• It takes 20 years to build a reputation and five minutes to ruin it. If you think about that, you'll do things differently.

The Future depends on US
The Competitive Ability

“The most important skill determining a person’s life pattern has already become the ability to learn new skills, to take in new concepts, to assess new situations. To deal with the unexpected. This will be true in the future. The competitive ability is the ability to learn.”

Seymour Papert, 1996

Harriet Goldin : Above & Beyond Excellence in Education

- Rays of Sunshine – A time of wonder & curiosity
- Wonder as a springboard – Initiation
- Engage curiosity to drive forward
- Use curiosity to sustain interest
- Ignitors to worlds beyond – opportunities for enrichment
- Spotlight the whole student (child)
- Beacons, Torches Beams of Light, Leadership, Legacies, Communities

Prajvalito Dyanamayah Pradeepah

- Katha
- Keertan
- Pachatantra

Models

- IMC RBNQA
- Core Values & Concepts
- ISO 9001:2008
- Core Values & Concepts

<table>
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<th></th>
<th>NBA</th>
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<th>RBNQA</th>
<th>Eur QA</th>
<th>Aus QA</th>
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<td>27%</td>
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<td>Business Results</td>
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<td>8%</td>
<td>15%</td>
<td>12%</td>
<td>20%</td>
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Dr. Vijay V. Bedekar, again, addressed the audience following Dr. Vishnu Kanhere’s presentation and said that saying Harvard and Oxford Universities’ teachers are not extraordinary. However, the only thing is that Indian teachers have to think creatively. Goals can be achieved when you are creative. Teacher’s interaction with the students matters.

Dr. (Ms.) Shobha Doshi then promised the Chairman and said,

“Sir, on behalf of all the teachers present, I promise we will excel and meet your expectations.”

Mr. Narayan Barse shared views on the changing scenario of the library. Mr. Barse was of the opinion that library was providing reference services only. However, today library provides information services too.
Presenting right pieces of information in right format is important. The need of current times is to anticipate whatever may be required by customers and then make provisions for the same and finally share it whenever required. Provisions for indexing, extracting, matching of virtual and physical sites are important.

Mr. Barse opined that **Online Public Access Catalogue (OPAC)** should be used by teachers and students to search the books. He further added that the services of the library should be sharply focused towards customers’ expectations. Appreciating VPM’s good ICT infrastructure, he expressed happiness and also added that VPM is generous in buying books or databases even if they are expensive. However, Mr. Barse highlighted underutilization of databases and concluded that the utilization should be better.

**POSER**

If VPM’s GOI have to rise above and beyond excellence, utilization of databases has to be improved through proactive partnership between teachers, inter-se, including the librarians – with librarian as a facilitator, catalyst or pace setter if necessary.
Mr. Santosh Chaturbhuj initiated his presentation by suggesting as to how to save the time of users. There are different services to be provided by the library that needs change and that is to be found out. Apart from just finding the book on the basis of ‘Title – Author–Subject’, it should be easy to find a particular book according to a particular topic e.g. Subject – Engineering Physics – Topic- Crystal/Crystal Microstructure.

For this, in addition to the function of the accession the librarian performs there is an additional task viz. ‘Indexing’ of books unit-wise, then title-wise in an excel sheet to facilitate improvement in end users’ service. As a result, the numbers of books on a particular topic available can be easily searched. Similarly for indexing databases, there are some steps to follow viz. separate indexing, saving in HTML format, classification according to subjects and saving on intranet.

The above steps will help the user to access information easily. Mr. Chaturbhuj added that books are the best and the most reliable source of information as the author has already done thorough research and then published the book.

Mr. Chaturbhuj mentioned that at present, Velneshwar college subscribes to 45 national and 35 international journals. Old issues of journals and periodicals are being kept bounded. However, that’s dead information. The solution to this is indexing. Soft copies are available too. This makes it easy
for all. In case of databases, searching is difficult. Hence, classification of articles can create a ready reference for users.

Mr. Chaturbhuj further said that interaction between Librarian and teachers is very important. Subject-wise articles and information can be sorted out with the help of such interaction. He said with some extra efforts we can tremendously improve the library services. Mr. Chaturbhuj said that there are various options for this which are as follows:

1. ‘Study Material’-PPTs used by teachers are saved.
2. ‘Articles-Subjects’ wise-topic related to the syllabus are being saved and available.
3. e-Books storage.
4. Download open source and connect it to intranet.
5. Search option in intranet etc.

All these help in making the teaching learning process effective. Further, he suggested some additional points of importance to make the library more effective viz. inter-library loan circulation and sharing of library is required.

Mr. Chaturbhuj concluded by saying that ‘citation skills’ should be taught to the students along with the bibliographical details.
Creativity and Innovation in Library Services

By
Mr. Santosh Chaturbhuj
Librarian, VPM's Maharshi Parshuram College of Engineering, Velneshwar

Summary of Presentation:

Mr. Santosh Chaturbhuj addresses, in his presentation, the changes that can be made to the prevailing library services, the benefits of different databases and the concomitant problems. Mr. Chaturbhuj also touched upon inter-library loan circulation and provided some tips to teachers in order to improve the value addition through effective teacher student interaction.

What kind of changes we can do in the existing library services?

(1) Cataloging and circulation services -
- Library uses Koha software and OPAC for above library services. In Koha we get bibliographical details and with the help of OPAC we can search books by Title, Author or Subject.
But students demand books in the following way:

| Title | Author | Subject | Topics from that subject |

For the fourth type of inquiry we create indexing database of books.

Steps to create indexing database of books

- Create excel index sheet of each book separately.
- Save the sheet in html format.
- Classify index sheet and upload it as per subjects.
- Create search option to this database.

Benefits of such database

- We get all titles of books related to particular topic.
- We get accession number of books at the same time.
- We get the list of appropriate books and information within one click.

02. Journal or Periodical Services

Problem

1) Back Issues are always kept bounded and not being used again.
2) It is impossible to check all the back issues for the articles on particular topic. Therefore these journals remain untouched.

How creating database provides solution to this problem?

1) By making index of these journals in soft copy and uploading it on intranet, we keep the back issues available for use.
2) It becomes available for user at a glance.
3) In this way journal database becomes user friendly.

Problem related to electronic databases

- Library subscribes for number of databases but the fact is that the teachers do not use these databases for the effective teaching learning process.
- Due to this they just teach the content prescribed in the syllabus and avoid the latest information about various topics.
• Solution:

1) The Librarian should take a meeting with the teaching faculty and make a list of search terms about various topics within the syllabus.

2) Then the Librarian should use a thesaurus and make a list of synonymous words about each search term.

3) Then search with the help of the terms in subscribed databases and download articles.

4) Save the articles in related folders and upload those folders on intranet.

5) Teachers will be able to use these articles while preparing their topics and can use the latest information in teaching learning process.

http://117.239.186.147/elib/
http://117.239.186.148/search/view.asp

Interlibrary Loan Circulation

• This is the concept which is based upon information sharing.

• We can connect with other libraries in nearby localities within the same field.

• We can share the catalog for getting reference.

• We can also share electronic databases to avoid reduplication.

Some tips for teacher

• For encouraging students for using all these advanced library services, the teacher should do the following things:

  1) Teacher should check that a student completes his/her assignment by referring 10 different books and articles.

  2) Teacher should teach the students the skill of citation.

  3) Teacher should expect bibliographical details at the end of assignments.
Concept of library books is outdated. Then, Dr. Vijay V. Bedekar asked the question - how many teachers are enrolled on the website ‘academia.edu’? The response was NIL. Teachers can upload their papers on such sites. Dr. Bedekar further added that there are more than 100 sites per subject which give the latest information. In case of medical science or physics, maximum information is available. Dr. Bedekar advised teachers to be proactive by accessing invaluable sites which provide inputs to enrich teaching – learning process.

Talking about the creativity and innovation in library, Mr. Sandeep Bhavsar supported the earlier views of two librarians from different institutions.

Mr. Bhavsar informed that there are logos of databases on the site of vpmthane.org through which databases can be easily accessed. There are various databases on the central server of VPM, Thane so that data sharing is possible among the group of institutions. There are some more facilities like e-Library, e-Journals, e-books, e-books on mobile, mobile website, instant message services through G-mail chat (7:00 am to 11:00 pm) and Skype.

On VPM Thane blog, teachers, including visiting faculty, and students, can post their articles, thoughts or ideas on http://www.vpmthane.blogspot.com. Further, access to financial times and other newspapers is also available.
VPM’s digital repository has the following features:

☞ Presentations and research contribution of teachers and proceedings of seminars and similar events.
☞ Videos of seminars and conferences along with key note speeches of personalities like Mr. N. R. Narayana Murthy, Mr. Ajay Piramal and many others.
☞ Power point presentations of guest lecturers between 2010-12.

**Other Facilities:**

<table>
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<tr>
<th><strong>Open Directory of Open Access Repository (DOAR)</strong></th>
<th>It is possible to upload articles which provide global perspectives. There are 2,200 leading Universities’ databases which can be readily accessed.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Web2.0</strong></td>
<td>Really Simple Syndication (RSS) is a way of providing content to the user’s browser. RSS – Readers subscribed to Google Blog lines.</td>
</tr>
<tr>
<td><strong>Online Reservation for Teachers</strong></td>
<td>Teachers can solicit library services through requisition of required information or access to databases. Such requests are always favorably complied with. Teachers can also access Web Online Public Access Catalogue (OPAC) and bibliographic union databases of public libraries viz. granthalaya.org.</td>
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Mr. Sandeep Bhavsar has discussed, in his presentation, the online resources available to users in Thane College Campus and various other dimensions of library services which include e-library, VPM Thane Blog, vpmthane.org, Digital Repository D-Space, Web2.0 and Bibliography Union Database of Public Libraries. Thus, VPM, Thane has made lavish investment in e-resources for the library. However, Mr. Bhavsar highlighted the fact that the usage index is relatively poor and said that teachers need to take full advantage of the extensive library services accessible to them. Mr. Bhavsar’s presentation speaks for itself.
ON LINE RESOURCES

• J-STOR
• EBSCO
• CMIE
• MANUPATRA
• CRISIL
• J-Gate S&M Sc.

Open Access Databases

• ERIC : Educational Resources Information Centre
• DOAJ : Directory of Open Access Journals
• Open DOAJ
• SSRN : Social Science Research Network
• SOPHi : Social Science Information Gateway
• PloS
• Vidyanidhi

OTHER DATABASES & SERVICES

• Access to British Council Books and Databases
• Access to American Information Centre Books and Articles Databases

OTHER SERVICES OFFERED

• Arranging frequent training programmes for using library software/in-house databases, online and offline databases
• Making available new additions of books and new articles/papers published through library Info Alerts
• Displaying on notice boards various conferences/seminars or competition details

Advanced Services

• E-Books in Mobiles
• Instant Message Service Through
  Gmail Chat: 7am. To 11 pm. (Email ID: drvnbrimslibrary@gmail.com)
  Skype: 7am To 11 pm. (Skype ID: drvnbrimslibrary)
• Multimedia Access
• VPM Thane Blog: http://www.vpthane.blogspot.com
• Mobile website: http://wapamana.net/drvnbrimslibrary
• Financial Times Newspaper: http://www.ft.com/home/uk
• VPM's Knowledge Repository: http://10.1.1.249/mediawiki/index.php/Main_Page
• Dspace BRIMS: http://10.1.1.249:8080/jspui/index.jsp
• Eduserve - Athens - UK

eLibrary
Web 2.0

- RSS is a way of providing content to the user’s browser or desktop in an efficient way. By using RSS feeds, user can stay updated with little extra effort.
This is a project of Vidya Prasarak Mandal, Thane which intends to create bibliographic union database of holdings of all the public libraries in Maharashtra.
**Discussion:**

☞ **Dr. P. M. Kelkar** suggested that teachers should identify a few topics of their key interests. It is not possible to do research on a wide array of topics. If the choice is made in favor of three to four topics, research contributions can then be easily mentored and monitored by Director. In a management institute, choice of student’s project can be a part of key responsibility areas for teachers. Student's projects should be on topics of current interests.

☞ **Dr. Vijay V. Bedekar** suggested that teachers should refer to the databases InfoTracCENGAGE Learning and Encyclopedia of Scientific Biography.
Ms. Sukhada Tambe was of the opinion that teaching is not merely sharing information or knowledge, but also an expression of values and attitudes. What teachers usually get back from their students is what they themselves have contributed to students through TLP.

Individual students may be better suited to learning in a particular way, using distinctive modes for thinking, relating and creating. Education takes place throughout life in many forms, none of which need to be exclusive. We must start to think about education in a more all encompassing fashion. Likewise, the four pillars cannot stand alone-they are mutually inclusive.
Few other dimensions on ‘Learning to Live Together’ were added viz. understanding others through empathy, dialogue, respect and appreciation, camaraderie, mutual trust, peace education, participatory democracy, preparedness and sensitivity to civic education.
Continuing Education:
Continuing Education is an universal feature of life today particularly so, for teachers who are always learners first-otherwise they cannot teach. Hence, continuing education can assume many forms viz. additional qualifications leading to dual or multiple specializations thus leading to improvement in qualifications vertically and or laterally. Further, secondments to industry, government or even educational institutions of repute and eminence are another dimension of improving the exposure of teachers. Continuing education can be a contributory factor towards the personality development of teachers.

Balancing Education and Training:
Effective education system may increase the employment opportunities for trained students, to a greater extent in a technologically lively sector and to a lesser extent in a mature industry. Therefore, balancing education and training is both possible and beneficial to all stakeholders involved.

\[ L \geq C \]

“It is a fundamental law of ecology that for any organism to survive, its rate of learning \( (L) \) must be equal to or greater than, the rate of change \( (C) \) in its environment”.


Exhibit 11: Fundamental Law

This session summed with up an amazing choreography video\textsuperscript{23} by Akbank, an exceptional video on synchronisation of body, mind and soul.

\textsuperscript{23}Full description of the video clippings including Akbank clipping, is presented in the paper ‘Rising Aboveand Beyond Excellence’ by Ms. Sukhada Tambe and Ms. Aditi Deuskar (pp 395-416).
Ms. Sukhada Tambe presented the TLP prevailing at DR VN BRIMS. Using the same as the basis, she presented a model which established the relationship between input and output and the role of facilitators in providing the best possible result (output) / resource (input) ratio. Ms. Tambe's presentation also touched upon the role of continuing education and the difference between education and training and various student-centric learning initiatives in this behalf. Highlighting the environmental turbulence, she focused on the learning imperatives and how it is necessary to unlearn before addressing the state-of-the-art learning and imbibing. She made a graphical presentation of how to balance teaching and research as presented below:
In the given *Exhibit 12*, X-axis denotes teaching process and Y-axis denotes empirical research. In most of the Universities, it is found that there is high emphasis on empirical research but very low on teaching process. Consulting firms lay a balanced emphasis on both empirical research and teaching process. As far as corporate training is concerned, there is high emphasis on teaching process but very less or no emphasis on empirical process. In fact, empirical inputs may not be available, required or used. Hence, its conspicuous absence.

The call for RAABE requires that VPM’s GOI, proactively and positively, address and focus the high impact zone wherein there is a high emphasis on both empirical research as well as teaching process. All institutions, nay teachers/research scholars, must make an effort to reach this target zone of high impact teaching and quality research work of global standard if rising above and beyond excellence has to become the order of the day for VPM’s GOI.
“Twenty first century will be the century of knowledge. Only those nations will survive and succeed, which will build themselves by understanding the dynamics of knowledge and create true knowledge societies.”


Learning to know:
- Foundation of learning
- Basic knowledge
- Living with dignity
- Concentration
- Ability to think
- Memory skills

Learning to do:
- Acquisition of practical skills
- Respond creatively
- Convert knowledge into effective innovations

Learning to live together:
- Understanding others through empathy, dialogue, respect and appreciation
- Camaraderie
- Mutual trust
- Peace education
- Civic education
- Participatory democracy

TEAM
Learning to be

• All around development
• Care for each aspect of personality
• Act independently
• Education is highly individualized experience and also interactive social experience

Teaching Learning Process

Teacher
Knowledge Exchange
Feedback
Evaluation
Continuous Assessment
Classroom Management

Model to be developed

Inputs
• University Syllabus
• Library
• Information Technology

Facilitators
• Faculty
• Full Time and Visiting Lectures
• Guest Lectures
• Workshops
• Seminars

Outputs
• Improvement in Quality of HR
• Value for Time Effort & Money
• Gateway to Wisdom
• Knowledge acquisition

Continuing Education

• Dual/Multiple Specialization
• Age is no bar
• Acquire and improve qualifications
• Diversification – Lateral Qualification & Experience
• Impact on the personality

Lokhitwadi’s view on education

If one learns, one should behave accordingly, otherwise education is waste.
One should not learn for employment.
What earns bread is labour and not education.
Education is knowledge, which makes a person clean, thoughtful and able.
Plan of Action

• Reading
• Writing
• Recitation

No escape from 3Rs be it Teacher or Student.

A Teacher is a Lifetime student.

Resources at the disposal of students

Balancing Education with Training

Education
• Lectures
• Guest Lectures
• Management Films
• Learning Situations

Training
• Summer Internship
• Specialisation Project
• Live Projects
• Students’ Activities

Contents Beyond Syllabus

Education
• Knowledge Acquisition
• Critical Thinking
• Objective Evaluation
• Evolution of Mind
• Value to Character

Training
• Acquisition of Competencies and Skills
• Vocational Skills
• Leadership Skills
• Soft Skills
• Functional Expertise
• Practice of Concepts

Student Centric Learning initiative

Workshops, Seminars, Summits, Student Activities
Industrial Visits
Projects
Applications in class
Guest lectures
Concepts
Fundamentals

Balancing Logic with Creativity
Environmental turbulence to Learning Imperative

- Turbulent environment
- Develop capability to deal with discontinuities in environment
- Seek new assignments on regular basis
- Learn continuously
- Learn how to learn and if necessary unlearn

Downfall of Civilizations did not occur because of invasions or disasters but because of their own success

- Arnold Toynbee’s findings

Success begets success but also leads to downfall
Dr. S. Savanur and Mr. Subhash Shinde made a presentation on the Teaching Learning Process (TLP) at VPM’s K. G. Joshi College of Arts and N. G. Bedekar College of Commerce. Their presentation addressed the importance of TLP and identifies it(TLP) as the core activity providing a stamp of identity to two most important stakeholders of any educational institution – teachers and students. The expectations of NAAC were well highlighted as shown below:

**Summary of Presentation:**

Learning is not only for students, it is also for teachers [Teacher Quality]

Teachers can not teach well unless they keep learning

Teaching should not be transmitting our teachers’ notes to our students [Interactive, Participative Teaching Methods, continuous assessment]

Learning is internalization of new knowledge

Then, incorporate it into teaching process

Then, learning will not be answering the questions, but questioning the answers [Individual and Collaborative Learning]

Leads to lifelong learning

The other features included what and how of learning and the role of feedback in improving the teaching learning process.
Teaching-Learning

Dr. S. Savanur

Why is it so important?

- It is the core activity
- For teachers: Teaching
- For students: Learning
- Teaching and Learning are our identity
- As the second criterion of the NAAC, it is much more than this.

Learning, but what and how?

- New skills: familiarity with new application software, subjects like management, personality development ...
- New Illustrations, images, PowerPoint Programmes, YouTube instructional videos etc
- Live examples, simulated, animated learning materials etc
- Research, Publications, seminars, conferences
- This adds value to the quality of teaching
- Students enjoy learning from such teaching

In short,

Teachers’ Learning

Students’ Improved Learning and Feedback

Better Teaching

Teaching, Learning

- Pre-NAAC connotation: Teachers Teach and Students Learn
- Post-NAAC connotation: Second criterion, one that carries maximum weight
- Therefore, strategically most important of the seven criteria
- All other criteria either supplement or complement ‘Teaching, Learning’
The TLP is driven through college calendar and executed and controlled by sincerity and dedication of students and teachers. All teaching and learning plans are student centric. Institutional strategies are motivated in favour of student’s development and students have to successfully survive competition in the outside world.

All activities in the college are aimed at enabling students in a manner that they can enact themselves to attain and maintain their ‘winning edge’.
Presentation on TLP was made by Dr. R. Athalye and Ms. M. Gholba of VPM’s B. N. Bandodkar College of Science. The TLP at VPM’s Science college is driven by a key factor viz. the college calendar (plan) and efforts are made to see that actual events are consistent with the intended events. The presentation highlights various teaching learning methods, students evaluation process, self efforts to facilitate advance learners as well as slow learners, inputs provided beyond classroom which include excursion, visits to industries and research institutes and opportunities for exploring skill acquisition through value added courses. Further, the college lays emphasis on the theme “teachers are lifelong learners”.

Summary of Presentation:

In teaching learning and evaluation process, our college does deliberate, continuous and conscious efforts for students’ centeredness, personality development and value and moral enhancement. This process is aimed at imparting quality education in science and on molding students into socially aware citizens.
This process is planned through the college calendar and executed and controlled by sincerity and dedication of students and teachers. All teaching and learning plans are student centric. It is always seen that institutional strategies help in overall development of students by achieving better knowledge. We always plan our activities to mould our students so that they can face this competitive world boldly.

Various teaching-learning methods:
- It is always seen by faculty that lecturing method suits to the level of understanding of the student.
- By adopting the latest technology like use of LCD, OHP, CD by teachers help the students to understand the subject and learning becomes more interesting.
- Most of our theory lessons are assisted by practical where the students get opportunity to discuss their difficulties in the subjects, directly with the concerned teacher.
- Students are motivated to read reference books from library for getting additional information.

Intake of Students
Majority of the students of our college are either first generation learners or coming from lower middle class families. Some of them join the college on failing to get admission to professional courses. Hence helping them to overcome their frustration and channelizing their energy to academics and extracurricular activities to gain confidence and to develop personality, is a challenge for the teachers, particularly at F.Y.B. Sc. level.
- Orientation lecture is conducted for the newly admitted students to know functioning and facilities available in the college.
- Prior to the commencement of regular course some departments arrange bridge courses.

- Models, charts, and specimens are used to supplement the lecture method.
- Group discussions are also held in Third Year B.Sc. classes.
- In addition to this, teachers conduct seminar followed by discussion related to the topic. This helps in developing confidence amongst the students.
- For foundation course, project work is made compulsory to every student.

All teachers personally see to it that attendance of students is nearing 100%. Periodically defaulters’ list is displayed and parents are informed about poor attendance.
- We have started using Digital Repository for Notes, Question Banks, Old Question Papers and Research Papers.
- It is observed that conducting remedial lectures before the additional examinations improve the performance of the students and hence we practice it.

Teachers judge slow and advanced learners through class tests and seminars.
Personal attention and guidance is given to slow and advanced learners inside the class and also outside the class. Teacher modifies his/her style of teaching to make it suitable for students' requirements.

For Slow learners
- Practice sessions or extra lecturers are conducted.
- Mentor teacher pays more attention to such students.
- Question bank and model/synoptic answers are provided and periodic tests are conducted.
- Parents-Students-Teachers meetings are conducted for motivation and guidance.
For advanced learners

- Teachers provide many opportunities for independent study and also encourage them to give presentations/seminars based on their reading.
- Additional reference books are recommended and book bank facility is provided for meritorious students.
- They are selected for various mini projects.
- They are encouraged to participate in various intercollegiate quiz and other competitions.
- Special guidance is given to them for participation in various competitive examinations like M. T. T. S. (Mathematics Training and Talent Search), I. I. T. entrance Examination, Olympiad, CAT, M.Sc. entrance etc.

Contd...

In addition to regular teaching for overall development of students we conduct following activities.

- Yearly conferences/seminars/workshops are arranged for students.
- Informative lectures by experts from reputed institutes are arranged by Departmental Clubs to get better knowledge about various innovative fields.
- We encourage our students to take research projects in different subjects and compile these projects in the form of "mini research project".

Contd.

- Information Technology (I.T.) department helps students for certification courses like Java certification of Sun Microsystems. Additional books from a library, and special guidance lectures by faculty are provided to such students.
- Biotechnology and Microbiology department have started the Journal Club –students along with teachers gather once in a month and read and discuss research paper from the Journal.

Contd.

- Long and short excursions form a part of our syllabus. Excursions develop the feeling of togetherness, obedience, discipline, ability to adjust and share and in general broaden vision of students. Excursions help to develop healthy and intimate relation between the students and teachers.
- Visits to Industries and research institutes help students to know much about upcoming technologies in the subjects and in career guidance after graduation.
- Various short-term Skill development/value added certificate courses are conducted.

Contd.

- All academic as well as extracurricular activities are planned, organized and controlled by students under the guidance of teachers through where they learn discipline, life skills and management which is nothing but lifelong learning.
- Students learn to cope with social issues through NSS activities.
- Students are encouraged to join NCC which teach them to become good citizen and which inculcate feeling of national pride and unity.

Contd.
We believe that Teachers are lifelong learners and hence teachers are encouraged to update their knowledge by attending various seminars/workshops/conferences.
Dr. S. Agarkar initiated his presentation, on the above theme, by highlighting factors affecting education as shown in Exhibit 14:

John Watson, one of the founders of ‘Behaviourism’, based his theories on the principles of learning outlined by Russian Physiologist – Mr. Ivan Petrovich Pavlov who suggested the theory known as ‘Classical Conditioning’; Mr. Pavlov trained dogs to salivate whenever he rang a bell. Dogs have a natural reflex response to salivate when they see food, Pavlov rang a bell when the dogs were given food and after several repetitions of this action, the dogs began to salivate whenever they heard the bell, even when there was no food there. This approach rejected the idea of the conscious mind.

Albert Ellis and Aaron T. Beck developed the present form of the cognitive approach to psychology in the 1950’s. This development emerged from a growing dissatisfaction with the narrowness of the behaviourist approach as it neglects complex human activities such as planning and communication. The cognitive approach eventually gave way to constructive approach as psychologists realized that a child constructs his/her own knowledge. This
theory demands that learners be provided enough opportunities to construct knowledge.

**Behaviouristic Approach:**

“The majority of people don't want to plan. They want to be free of the responsibility of planning. What they ask for is merely some assurance that they will be decently provided for. The rest is a day-to-day enjoyment of life. That's the explanation for your Father Divines; people naturally flock to anyone they can trust for the necessities of life... They are the backbone of a community--solid, trust-worthy, essential.”

—B.F. Skinner, Walden Two

**Cognitive Approach:**

“The principle goal of education in the schools should be creating men and women who are capable of doing new things, not simply repeating what other generations have done; men and women who are creative, inventive and discoverers, who can be critical and verify, and not accept, everything they are offered.”

—Jean Piaget

“If I had to reduce all of educational psychology to just one principle, I would say this: The most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly.”

—David Ausubel

“Language is the tool of the tools”

—Lev S. Vygotsky
The 21st century demands people with Contextualized Multiple Intelligence (CMI). CMI citizen means a person capable of using his/her potential in different situations and within a particular context. A Project Based Learning (PBL) strategy would help achieve this goal.

Dr. Agarkar also highlighted the L3 (Life Long Learner) concept. “L3 has the potential to make the knowledge generated by the University more accessible and valuable and prepare CMI citizens.”

Information can be accessed anywhere, anytime and by anyone who is an ICT user and thus benefits the education process to a large extent.

The issue of societal commitment to higher education was discussed. The social responsibility of public institutions, such as Universities and other institutions of higher education, and this social responsibility deserve, more than ever, deeper reflection both its nature and scope.

The global economic crisis of 2008 has highlighted societal commitment to education, underscored by the decision of some of the leading economic
powers to spend massively on education as a sound investment for economic recovery and growth. However, it has also highlighted the fact that society has endowed its educational institutions with greater social responsibilities than ever before, and the expectations are high. We now look to education not just to educate our children and youth, but also to eradicate poverty and set the country on the path to peace and sustainable development.

Finally, it is with our institutions of higher education that the responsibility falls to oversee development and innovation in new technologies.

Dr. Agarkar’s presentation thus touched upon educational psychology, constructivism, social changes, CMI citizenship, technological developments, role of ICT in education and the responsibility of educational institutions if the wish to rise above and beyond excellence as shown below:

- They should keep pace with the changes.
- They should follow innovative methods to cope with the changes.
- They should innovate to cater to local and global needs.
- They should collaborate for exchange of ideas and manpower.
- They should develop skill of learning.

* Exhibit 15: Responsibility of Educational Institutions
Dr. S. Agarkar made a presentation on the theme ‘Innovation in Education’ and addressed innovation through three main dimensions viz. educational psychology, social changes and technological developments. Various approaches in educational psychology were discussed along with the social changes and implications of technology for education. His presentation explored behaviorism based on Mr. Pavlov’s contributions and the cognitive and constructivist approaches. He focused on the use of ICT in education and highlighted, inter-alia, the role of knowledge based websites, open course wares and virtual universities.
Educational Psychology

- Behaviouristic Approach: Advocated by Thorndike, Pavlov and Skinner stated that there is a connection between stimulus and response. It gets strengthened by reinforcement and weakened by punishments.
- Cognitivistic Approach: Advocated by Piaget it brings out the role of cognitive schema and motivation in learning.

Constructivism

- Every child constructs his own knowledge when he/she gets inputs are goes through experiences.
- The role of a teacher is to facilitate construction of knowledge by creating conducive environment and opportunities for active participation.
- Based on this thinking a method of Project based Learning has been developed.

Social Changes

- Society changed from Agrarian to industrial to knowledge society.
- In the agrarian society it was enough to teach the techniques of farming and preservation of food-grains.
- In industrial society the expectations were to prepare manpower for maintaining and expanding industries.
- In the knowledge society, however, the expectation is to make the child a Life Long Learner (L3) and prepare him/her as Contextualized Multiple Intelligence (CMI) citizen.

CMI Citizen

- The society is changing fast. Unknown problems are being created and we expect the learned members of the society to use their knowledge to solve those problems.
- In order to prepare CMI citizens the focus of teaching is changed to Problem Solving Approach.
- The new teaching is based on dealing with problems in science, technology and society.

Technological Developments

- Recent technological developments have lead to a connected society.
- The information can be accessed by anyone, anywhere and anytime.
- Multiple learning sources are now created and are being used.
- Distance mode of education has now become possible.
Use of ICT in Education

- Knowledge based websites are being created (Wikipedia).
- Open Course-wares are now made available (MIT).
- Open Educational Resources are being created (OER4S Project).
- Virtual Universities are established (African Virtual University).
- Classrooms using technology are designed (COTF).
Dr. Parvathi Venkatesh added that the role of a teacher is to identify the spark of learning that students have and ignite it. Every learner presents a unique profile of strengths and weaknesses. We unlock motivation when we acknowledge and address unique learning profiles.
Innovation means finding something new and are of two types viz. a totally new idea bringing about a radical change and adding to already existing idea i.e. incremental innovativeness. New courses such as environmental scanning, disaster management, tennis management and many other short courses were designed for students. This represents a totally new course, a radical departure from prevailing courses.

Introduction of credit-based choice system was a tough decision but it was need of the hour as suicide rates were increasing due to failure of students in various examinations-thanks to the numerical marking system and the final results which were always expressed in hierarchies of class and pass or fail. The humiliation of failure provoked students to commit suicide. The new credit system was supposed to be superior viable alternative with compassion and concern for the human factor. The shift from ‘marks’ to ‘grades’ and from hierarchies of success levels to uniform end result – ‘pass’ or ‘incomplete’ was a radical change.
Teachers’ should actively contribute to syllabi framing, innovative teaching and evolving new assessment patterns. Teachers should focus on the research climate development in college and can think of undertaking various new projects say, micro, small and medium enterprises (MSME) funded by government or private funded projects.

Dr. Venkatesh summed up her presentation by saying that time has come where we need to focus on how education institutes can create more and more entrepreneurs. Dr. Venkatesh strongly recommended to Chairman that VPM, Thane should take a lead in this direction.
Dr. P. M. Kelkar made a detailed presentation on various dimensions governing creativity & innovation in education. Dr. Kelkar explored a very wide canvas on the subject and addressed, inter-alia, creativity and innovation in education, need for creativity, current teaching environment, teaching of creativity in the classroom, creativity and innovation model for teachers, the status of education business and innovation needed in education. Further, towards the end of his presentation, Dr. Kelkar presented new career options and also presented a projection of the profile of careers likely to emerge in 2030 as shown below:

- Family therapist to take care of basic health problems
- Renewable energy scientist
- Healthcare and Medical Assistants to run physician’s office
- Biochemists and Biophysicists to develop biological products that improve our life
- Digital Identity Planner
- Talent Manager to market products made by individuals
- Elderly Wellness Consultants
- Child Care Experts
- Urban Agriculturist
- Millennial Generation Advisor
Creativity & Innovation in Education

Conference on Rising Above and Beyond Excellence in VPM’s GOI
14-15 June 2013
Dr. P. M. Kelkar

Background

- College education for masses: India v/s USA model
- Vocational education for masses: ITI courses (AICTE)
- Education from science student’s point of view
  - Subjects that needed to be memorized and practiced: Sanskrit, Maths, Trigonometry, Botany (Neem= Azadirachta Indica), Microbiology, Biochemistry, Advanced Physics, Chemical Engineering, Heat Engines, Applied Mechanics, many others.
  - These need creativity & innovation in teaching. We could use logic and little practice in others.

Why Creativity and Innovation in Education?

- Demographic dividend needs to be utilized
- High and worldwide competition amongst local and foreign colleges and universities to attract students
- Corporates getting involved in education delivery
- Worldwide ranking of Indian Universities abysmally low even amongst top 100 in Asia
- Digital world changing landscape of education delivery. We need to know kind of education needed in future
- All this has to happen for the benefit of VPM Group of Institutions

Just suppose …

- Virtual education became an universal reality?
- Corporates take over education business?
- Students created digital learning resources?
- Students worked from home or elsewhere?
- Students led their own learning?
- Timetable were flexible?

Definitions

- Creativity is about generation of novel ideas, concepts, approaches or new associations between existing ideas or concepts
- Creativity can be nurtured and enhanced through use of tools, techniques, and strategies
- Innovation is process of converting novel ideas into something of value
- Innovation stems from creative application of knowledge that leads to new knowledge and then to wealth
- Knowledge and knowledge driven capabilities are raw materials while creativity is the ingredient which lead to innovation
Definitions

- Innovations evolve from historical, iterative processes, as well as new need e.g. automobile was developed from concepts of horse carriage but banking business was developed from transactions required for payment of tobacco
- If one considers internal concepts as Vertical Y-axis and external concepts as horizontal X-axis, one can see several vertical planes moving horizontally across different categories of thought referred to as the Lateral thinking
- Creative process enables us to recognize patterns and use those insights to make inductive predictions about divergent ideas both across vertical and horizontal categories
- Lateral thinking allows using trial and error method for solving problems; trying to look at the problem from many angles instead of tackling it head on

Creativity & Innovation: Comparison

<table>
<thead>
<tr>
<th>Measure</th>
<th>Creativity</th>
<th>Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process</td>
<td>Totally new</td>
<td>Process exists</td>
</tr>
<tr>
<td>Risk</td>
<td>Risky</td>
<td>Less Risky</td>
</tr>
<tr>
<td>Failure Rate</td>
<td>Higher</td>
<td>Lower</td>
</tr>
<tr>
<td>Resources</td>
<td>High requirement</td>
<td>Low requirement</td>
</tr>
<tr>
<td>Organizational Support</td>
<td>Long term</td>
<td>Short/Medium term</td>
</tr>
<tr>
<td>Bail Out</td>
<td>Difficult</td>
<td>Easy</td>
</tr>
<tr>
<td>Corporate Culture</td>
<td>Sophisticated</td>
<td>Simple</td>
</tr>
</tbody>
</table>

Need for Creativity: Students’ Point of View

- Students need to find classes worthwhile attending
- Students don’t enjoy education even though they know that it’s good for them like exercise or health food
- There is a sense of hollowness which a lot of young people find today in educational institutes. They find nobody cares for them and the learning game is essentially a marks-examination game
- Success in this game is means eliminating a lot of people from the race

Gen X v/s Gen Y Issues

- Although India enjoys demographic dividend, attitudes and attributes of Gen Y are at variance with those of Gen X
- Gen Y students have rising expectations. They are restless, continue to look for something different, difficult and complex
- Teachers find it difficult to appreciate their attitude in life and behaviour in classroom
- Students’ conflicting value system with teachers gives rise to misunderstanding. Gen Y students also do not perceive any value addition in their personal or professional life from teachers of Gen X thinking their competencies may not be useful in developing skill sets required for 21st century
- This all results in confrontation, alienation, disinterest in studies and absenteeism

Creativity and Innovation in Education

- Knowledge has to be taken by the student and unless a student is motivated, no learning can take place
- Indian education model is from school to college to professional course for a job. Services economy needs to give options for job much quicker
- Teachers job should not end by showing power point presentation in stipulated time. As a result, education efficiency is measured without considering effectiveness
- We need to relook at education and ask ourselves, who loses if the student does not learn and the teacher does no teach?
Empowering Students

- Educational institutes should work to foster a proper and conducive environment of understanding between teachers and students such that teachers enjoy teaching and students enjoy learning
- This can only be possible by empowering students by involving them in decision making processes of managing institutes

Current Teaching Environment

- Our teaching-learning process is based on the expertise of teachers who deposits information in his/her students who merely act as containers of information than knowledge
- Education is seen as activity of regimentation and hence creativity has no place in it
- A teacher in school finds 7-year-old well mannered boy often giving different answers. When asked 'what does cow give us?' Boy says, cow gives us dung. Teacher says that is not a good answer. You should say cow gives us milk (another story: drawing amoeba instead of animal)

Current Teaching Environment

- Education is commonly treated as a standardized and sequential activity like training, providing identical skills and transmitting predetermined information 1-10, 10+2, 12+3 etc. for admissions
- Examinations and standardized testing techniques tend to incentivize homogeneity and undermine creativity
- Standardized testing does have value in diagnostics but it should not become ultimate aim of learning. Learning by memorizing and reporting preset information is not the essence of education
- Does it mean that creativity is in opposition to education?

Creativity

- Creative work requires system and discipline to actually produce something e.g. AR Rahman requires to be good in music but also have freedom to speculate and innovate
- Creativity is seen in all fields, medicine, physics, cooking etc. Nor it is limited to special people. One can develop and build upon his/her creativity
- Creativity is not opposed to intelligence. Top mathematicians and writers are highly intelligent people and that is why they think of new ways of doing things

Instructional approach to creativity

- Establish a creative environment
- Focus on divergent thinking skills
- Encourage complex thinking and feeling of processes
- Foster independence
- Allow time for incubation of ideas and responses
- Integrate problem solving activities, big and small
- Model creativity

Creativity teaching in a class-room

- Practice problem solving and creative thinking with students so that skills are internalized
- Remove obstacles and brakes that we put on our imagination. Set up discussions and experiences that put pre-judgments aside
- Discuss one controversial issue each week
- Teacher should be a role model. Should clarify values, goals and ideas about creativity
Creativity and Innovation model for Teachers

- Develop learning orientation within teaching as a profession and across education system
- Build teacher capacity to identify and solve problems, analyze and research data
- Focus on developing and innovating next practices in education
- Build professional knowledge
- Identify and develop most creative, innovative and ingenious teachers

Teaching Innovation

- Introduce innovation in courses in order to transform students into well-rounded professionals
- Curriculum should include critical analytical thinking, personal leadership skills and innovative thinking
- Students should recognize and construct a strong logical argument and ways to spot its assumptions, flaws and limitations
- Provide small group coaching for student to learn effectively in teams and hone personal leadership styles. Create multidisciplinary courses that bring students from diverse backgrounds to create unique products/processes
- Key challenge is to educate students to be innovative problem-solvers who understand impact of their actions on stakeholders across the world
- Study trip or internship in country where student has not worked before. Ask them to deal with complexities, globalization of economies, sophisticated financial markets, greater sensitivity to environmental concerns, increasing cultural diversity

Status of Education Business

- As a result, CARE has downgraded rating of Educomp (market value Cr 7000 to Cr 1000), Core education and Everonn education
- Education not priority for venture industry. VC fund Cannan invested only 5% out of 800 million in education
- Biggest part of $80 billion is running or supplying educational material to schools. But 1.1 million/1.3 million schools are government.
- India Gross Enrolment Ratio is just 14% compared to 70% in West and 23% in Asia. So to keep costs low, Govt. rules dis-incentivise private players. Business group can’t set up a for-profit degree college of CBSE school. They have to go via trust route (PwC)

Status of Education Business

- Payment and Governance: 70% of industry’s revenues come from being a vendor, setting up computer labs, supplying computer-based learning kits and contents e.g. Educomp’s SmartClass and HCL Infosystem’s DigiClass. As Govt. is largest customer, receivables shoot up for over 9 months to a year
- Pursuit of quarterly profits is also to blame for governance notoriety in this sector. Education needs capital that is patient and willing to wait-Meena Ganesh of TutorVista who credits quick growth to an asset-light model, students paying up-front for the coaching. Same with MeritNation who charges 3000-4000 per student/year for its online school content
- Innovation: Industry struggles from its inability to innovate
## Innovation in Education Business

- Full of copy cats, no new models. Most people have a perception that you can easily make money by having some version of computer-based teaching started by NIIT and Educomp.
- Running pre-schools and coaching classes is tried-tested business of making money in education. Advantage here is negative working capital, all money collected upfront e.g. city centric IIT Coaching in Kota. But it lacks scaling up ability.
- Broad-band penetration in India is limited to 2% in schools and its too early for use of social media in education.

## Innovation in Education Business

- India needs over 20,000 new schools in next 5 years-AISECT. Pearson is diversifying from publishing books to technology-based business lines. Streamline schools timetable and build its brand. Company will soon launch tablet-based learning courses on Micromax and Samsung tablets.
- Despite challenges, education is a business for the future. Education business which focuses on contents in future will follow child from school to home-content, test preparation, assessments and remedial path.
- Govt. has earmarked Rs. 31,000 crores for Sarva Shiksha Abhiyan and Madhyamik Shiksha Abhiyan.
- Consultants advice education business to avoid government contracts and not to go for scale right away. Asset light model is preferred over capital intensive business.

## Innovation in Education Business

- MOOKS—Massively Open Online Courses (by Coursera) that enable student-teacher interaction over the internet is a big innovation in USA. Similarly we are unable to use YouTube or social media in education in India like Edmodo in US, kind of a Facebook for schools bringing together parents, teachers and students online (see Khan Academy).
- Educomp is bundling tablets with course contents in partnership with Intel. AISECT recently started offering school learning on a pen drive, retailing between 1000 to 20,000 for standard I to XII.
- EDUTech and Adobe are launching various courses through Adobe* Creative Cloud.

## Innovation in Education Business

- NIIT’s core area of IT training GNIIT which used to enroll 70,000 students in 2010 is able to enroll only 50,000 now and facing a squeeze.
- Plan to offer 50 courses directly on students’ tablets and desktops via cloud campus and expects to enroll 5 lakh students in its 950 class-rooms in 2014.
- It expects 1/3rd of its revenue in next 3 years come from online courses in Banking and Insurance, Design, Social Media Marketing, Digital Media Marketing. They expect that banking alone will require 5 lakh professionals in next five years.

## Innovation in Education Business

- Web 2.0: Use of blogs, micro blogs, wikis, syndication of content through RSS, tag-based folksonomies, social bookmarking, media-sharing, social networking sites etc. for education.
- M.Sc. in Business Management & Technology; International NPD programs; Advanced Innovation & NPD course ENGEEN 405; Project-based Learning Courses; Course on Entrepreneurship in non-business higher education; HBR course on Design Thinking & Innovation, Open Educational Resources & Creativity; Animation courses.

## New Career Options

- Social Media Manager: a professional who handles all the digital conversations regarding a particular brand e.g. Honest Tea in USA which sells organic beverages.
- Chief Listening Officer: a professional responsible for strategy, processes and technologies for consumer and b to b activities to improve product and customer experience.
- Online Content Curator: a professional responsible for collecting, analyzing, revising and publishing digital information as per needs of a company.
- Web Designers, Video Producers, Cloud Computing Manager.
- Sustainability Managers to guide companies toward eco-friendly solutions.
Thus, the first day ended with a few responses from Dr. Vijay V. Bedekar:

Everything in India is not bad in terms of resources. However, we need to make optimum use of available resources. Best creativity can be seen through works of poets, artists, painters. Creativity in ‘mathematics’ class’ is not just about what students do but also what teachers do. If we are thinking creatively about the mathematical experiences we offer to our students we can open up opportunities for them to be creative.

Three things we need to keep in mind are:

☞ How we present content?
☞ How we model good practices? and
☞ How we encourage our students to be creative?

Problem solving should be about valuing independence and individual ideas. We need to accept students as they are, introspect from time to time and be ready to accept and absorb change which is the only permanent facet of today’s environment. Statism is non-existent and wherever it exits it is a dangerous proposition.

Finally, Dr. Bedekar said VPM, Thane has a good branding because of teachers. There cannot be two opinions on this. However, we need to accept the fact that we need to change. Further, Dr. Bedekar also said that according to him usually people don’t make deep, fundamental changes in their lives unless three conditions are met:
First, we must be convinced that what we are presently doing is not really working and will certainly not work in the future.

Next, we must have a realistic idea or vision as to what we could do instead and that should be better than the present.

AND

Finally, we must believe that it’s possible for us to make the transition from what we are doing now to what we would like to do instead – we must hope for something better and work towards it.

Lacking in any one of the three aspects mentioned above, we just keep on doing the same thing again and again. In these circumstances, change is ruled out, thus rendering the call of the conference theme ‘RAABE’ rather defunct and nugatory.
The day two of the conference commenced with the presentation on the topic “Resource Management in Educational Institutions”. The speaker gave a small quiz to participants and asked them to pen their views on the said title.

Dr. Murthy expressed few thoughts about resource management. Thus, given that resources are scarce, resource management requires that the ratio of result to resources should be as high as possible. Further, education is cost capital, control and competition intensive.

The inputs resources in any organisation include 7 Ms as shown in the Exhibit 17 below:
Given the above resources, productivity can be defined from various perspectives as shown below:

**WHAT IS PRODUCTIVITY?:**

In economics, productivity is the amount of output created (in terms of goods produced or services rendered) per unit input used.

- *Wikipedia.com*

Productivity is a measure relating a quantity or quality of output to the inputs required to produce it.

- *From Econterms*

A measure of the amount of output per unit of input. Investopedia says: For example, productivity in the auto industry might be measured by the number of hours of labor used per automobile produced.

- *Investopedia.com*

Measured relationship of the quantity and quality of units produced and the labor per unit of time. For example, an increase in productivity is achieved through an increase in production per unit of labor over time.

- *Barron's Business Directory*

Productivity is the result or the sum of all efforts that it takes to deliver a product or service. Productivity is frequently referred to as output and, to some degree, can be measured. Productivity is the economic value of goods and services. It becomes the value or result of the “price” of a product or service minus all “costs” (supplies, materials, human labor, etc., which frequently are monetary) that go into the effort.

- *Answer.com*

“Capital” actually has two interrelated meanings: physical capital (machinery and buildings) and financial capital (stocks and bonds), which lays claim on physical capital and the income it generates. Capital productivity is the measure of how well physical capital is utilised in providing goods and services. Productivity of financial capital is measured, inter-alia, by the yield or the internal rate of return of the capital investor in financial assets.


*Exhibit 18: What is Productivity?*
Applying the spirit underlying the above definition, at the operational level, for any organization, productivity refers to one or more of the following:

1. Continuously maximise output for any given input;
2. Continuously minimise input for any given output
3. Continuously maximise output and minimise input;
4. Continuously ensure that the increase in rate of output > the increase in rate of input

From the financial perspective, productivity refers to:

1. Continuously maximise the surplus for any given investment;
2. Continuously minimise investment for any given surplus;
3. Continuously maximise surplus and minimise investment;
4. Continuously ensure that the increase in rate of surplus > the increase in rate of investment

Thus, there has to be surplus generated for every rupee invested in activities. In financial parlance, this is known as Return on Investments (ROI). For all organizations, in any part of the world, there are only three ways of improving return on investment:

- revenue
- costs (variable and fixed)
- investment

The discussion then proceeded with individual items viz. revenue, cost and investment.
Sources of Revenue:
Grants from government, students fees, knowledge base (through third party work), consultancy work, MDP, market based research, clinical trials, collaborations, patents, copyrights, research projects - Government funding and private funding

Dr. Murthy expressed Peter Drucker’s thoughts viz. *cost centres to be converted into revenue centres preferably profit centres.*

Suggestions - Revenue Generation:
☞ **Dr. (Ms.) Madhuri Pejaver** gave an example of consultancy project in Zoology Department.
☞ Classrooms are rented for / government exams and small seminars and other academic and social events.
☞ **Mr. Narayan Barse** said library membership offered to external members and till date there are 100 such members registered.
☞ **Dr. P. M. Kelkar** gave examples of revenue generation through value added courses, IT lab and third party collaborations and effective resource consumption.
☞ A similar exercise is required for other libraries of VPM’s GOI. The other librarians may follow suit as soon as possible in consultation with the authorities.
☞ **Mr. Sandeep Bhavsar** suggested that from the current year (2013), around 450 people will be contacted from Thane Directory with reference to external membership for Library and utilizing resources like open access database and journals.
☞ **Mr. Subhash Shinde** added by expressing that there is a weightage given by NAAC with respect to revenue generation by institution.
☞ **Dr. Vijay V. Bedekar** correlated this with examples of hall rent in UK which is ‘*power*’ by the hour and also highlighted the key role of Heads
of Departments in generating more and more revenues. He also mentioned that we welcome all suggestions and initiatives in this regards.

☞ **Mr. Deepak Murdeshwar** highlighted the fact that throughout Mumbai University, VPM’s T.M.C Law College is famous for conducting regular lectures and suggested that students who do not get admission in our college can avail the facility of attending only lectures by paying minimal fees. Mr. Murdeshwar added that to create surplus we need to cut cost.

☞ **Mr. Subhash Shinde** suggested the use of Manupattra database for advocates as a potential source of revenue.

### Suggestions – Cost Management:

☞ **Dr. (Ms.) Madhuri Pejaver** shared the ‘environment’ project taken by students to reduce electricity and also highlighted the initiative of converting 600kgs. of waste into ‘biocompost’ every year.

☞ **Dr. P. M. Kelkar** said a rupee saved is a rupee earned.

☞ The speaker took the session further by expressing, “Action is a key to management”.

☞ **Dr. K. Desai** shared his views on cost management: electricity, systems change, use of solar energy and minimising paper wastage.

☞ **Ms. Srividhya Jayakumar** expressed her views on paper wastage in the form of practical journals and University answer sheets where only few pages are used by students and others are wasted. Unused papers are collected and used again.

☞ **Dr. M. Nyayate** expressed that throughout our campus many of the water taps are continuously leaking and if this is taken care through
timely repairing, substantial water can be saved. This is true for overhead tanks of each building.

☞ Timely repairs should be conducted for physics and other laboratory instruments.

☞ Checking of high power boards combine together using infrared sensors.

☞ **Dr. (Ms.) Shobha Doshi** shared the initiative started by their college to give a single flower instead of big bouquets. Giving bouquets to host dignitaries was discontinued.

☞ Further, earthen pots painted by students were given as token to guests as a cost saving measure.

☞ **Ms. Srividhya Jayakumar** expressed that maximum lectures in Law college should be taken by alumni and past students who are advocates as they are ready to share their experiences with the students without any financial consideration.

### Suggestions – Investment Management:

☞ The session progressed further and the discussion shifted to effective utilisation of investments. It is good to invest. However, redundant, ideal assets which are unproductive and wasteful should be divested as soon and as far as possible. Ideally, the ideal capacity should be limited or zero. It may not always be possible to reduce investment because of technological indivisibility or regulatory mandates. Yet, any investment made should be productively utilised because huge amounts are frozen in different forms over the network of VPM’s GOI.
Discussion – Other Points:

☞ **Dr. P. M. Kelkar** said that all these initiatives should be documented in the form of monthly report.

☞ **Dr. P. M. Kelkar** suggested that we are having Moodle based applications but we need to have a dashboard to give Chairman/Principal/Heads of Departments a picturesque presentation of entire campus to get the real view of the activities going on the college.

☞ **Dr. Vijay V. Bedekar** added that a presentation should be made by every department and same should be passed on to other departments.

☞ **Dr. (Ms.) K. Mulye** said that we are continuously thinking of conserving energy. However we also need to take care about conserving time and be punctual in all our daily chores, both at work and personal front.

☞ **Dr. Guruprasad Murthy** expressed that every faculty should start and end their lectures on time. He further added that “TIME IS MONEY”.

☞ **Dr. Vijay V. Bedekar** said though we are ‘A’ grade by NAAC. However, this rank does not match to global standards and we need to take this seriously. We need to think about top Universities like Oxford and Cambridge. In these University’s, teachers need to be very clear with their thought processes and teaching notes before going to class. They need to inculcate the same in the student and thus trigger their mindsets to think beyond classrooms. Punctuality is very important and is a part of discipline. Unpunctual behaviour cannot be tolerated. If we are serious about RAABE, we need to imbibe punctuality, as a way of life. Till date, VPM does not have one ‘patent’ and no article from faculty fraternity for Disha Magazine in local Marathi language. We
need to appreciate aesthetics. Students coming to VPM’s GOI should feel good and pleasant. He added few expectations:

- Teachers’ preparation before the class starts.
- Overall hygiene and environment of classrooms and premises must be of acceptable standards in terms of cleanliness and overall ambience must be friendly.
- Frames/boards/notices should be placed properly.
- Resources have to be used optimally.

He appreciated Dr. Kelkar’s style of writing emails and the way he writes the minutes on next day of every meeting. He added that meetings should be held regularly and must be precise. The discussions in the meetings must be restricted to agenda of the meeting and must be solution oriented rather than complaints. If we want to achieve the theme of the conference i.e., “RAABE” we need to get away with mediocrity and change and improve VPM, Thane first which is our home.

☞ Dr. M. Nyayate commented that our output is student and their results.
Resource Management in Educational Institutions

A Quiz
**Profitability Management:**

- Revenue Price Volume, Costs and Investments

**FINANCIAL PRODUCTIVITY**

Surplus divided by Investment

\[
\frac{\text{Surplus}}{\text{Revenue}} \times \frac{\text{Revenue}}{\text{Investment}} \times \frac{\text{Surplus (\%)}\times \text{Turnover of Investment (Times)}}{}
\]

ROI = Surplus / Investment, Measure of Financial Productivity

\[
\text{ROI} = \frac{\text{Surplus}}{\text{Investment}}
\]

**a.** SURPLUS is defined as REVENUE - COSTS

**b.** REVENUE depends on:

**c. Customers:** students, clients - corporates / individuals, teachers, administration, any other - competition, costs and controls

**d.** REVENUE = Price x Volume

**e. COSTS include:**

variable costs driven by volume, fixed costs not driven by volume

2.

**a. Productivity Management (How?):**

↑ revenue

↓ costs
manage investments effectively and efficiently.

b. ‘Sustained Productivity Management’ contributes to:

quality, result oriented, efficiency, effectiveness and overall economy.

c. Productivity is defined as: Genius of the Organisation at Work.

d. What is your perception of PRODUCTIVITY?

output in a given time quality / quantity, optimal utilisation of resources, max yield, $2 \times 2 = 5$ (synergy), output / input, optimum output with given time, money and effort and value addition.

e. PRODUCTIVITY is:

people dependent, motivation and attitude of work force: teachers, administration and other stakeholders.

3.

a. Revenue Management:


b. CAVEAT

Remember

“More revenue does not mean more surpluses”
Why? Because of Cost. Thus: Surplus = (Revenue – Cost)

4. **Volume Management:**
   Multi Shift (Expansion), diversification, divestment, rationalisation, economic batch size, intra dept. fees, price discrimination, economies of scale (without effecting quality), norms / benchmarks students teachers ratio, innovation in pedagogy and collaboration programmes.

5.

a. **Cost Management:**
   Contractual appts., sharing infrastructural facilities, inter disciplinary courses, budget, automation, outsourcing (common services), kaizen, financial accountability, business process reengineering, competitive benchmarking, standards and standard cost.

b. **Cost Management Strategy:**
   Keep fixed costs as low as possible, enables moderation of volatility of surplus, helps to scale down break – even point, reduced risks, unit cost productivity can improve if existing fixed cost can absorb new activities – economies of scale, usually ratio of fixed costs to total costs is high

c. **Cost mix to be monitored:**
   Education: to reiterate, capital intensive, cost intensive
6. 

   a. **Investment Management:**

       Existing investments, proposed investment

   b. **Existing investments:**

       Smart Utilisation of: fixed assets, current assets

   c. **Fixed Assets:**

       Screening of assets, weeding out redundant assets, optimal utilisation of space particularly in ‘**prime locations**’, maximisation control of cash receipts and ageing report of customers, innovation management of inventories of consumables: vendor analysis, quantity discounts, tailor made delivery schedule and greater decentralization.

   d. **Current Assets:**

       Cash collections to be reported to decisional centres that can deploy money, wise investment of idle cash balances, investment polices of education institutions to be reviewed from time to time, upfront collection of fees, service charges to be encouraged, ensure that delinquencies of non-payment / deployed payment are monitored.

7. **Key to Successful Resource Management:**

       Manage resources smartly, Invest in those resources, Better deal with suppliers through: negotiations on new deals, re-negotiations on existing deals. Higher and smarted utilisation of assets, bureaucracy, duplication of work, numbers of signatures, movement of papers, improved working practices, sharper decision making processes, delegation / decentralisation, accountability, flat organisations, ownership of projects / tasks.
8. **Remember, while making decisions:**

   Excellence and surplus need not be in conflict
   
   Excellence and surplus = success
We make decisions every day; everything we say and do is the result of a decision, whether we make it consciously or not. For every choice, big or small, there is no easy formula as such for making the right decision.

Since admissions are regulated by Government (AICTE, DTE, and University of Mumbai) through a centralised process, there is no choice with respect to students to be admitted. Hence, there is no decision to be taken in this behalf. Thus, Decision Making means:

☞ Choosing from among alternatives.
☞ When there is no choice, there is no decision.
☞ Decision is influenced, inter-alia by:

- Circumstances
- Fiat – Government order
- Legal Decisions – Court Directives
- Leadership styles – Can be Theory X or Theory Y or a combination
- Organizational policies – VPM’s rules and regulations regarding leave read in conjunction with the regulators’ directives wherever applicable.
Dr. (Ms.) Shobha Doshi highlighted that decisions should be pragmatic, workable, cover all environmental aspects, goal oriented and not biased.

Ms. Rashmi Agnihotri further added that decisions should be not biased on account of peer level influences and references.

Mr. A. Patil said that decision making capabilities are tested mostly in emergency situations.

**Decision Making Models:**

**Model 1**

- Judgment
- Intuition
- Experience
- Common-sense
- Shrewdness
- Acumen
- Clairvoyance

**Model 2**

- Quantified information as input to guide or aid decision making.
- Quantified information includes:
  - Accounting information
  - Non accounting information

However decision making starts where formulae ends.
Decision making is usually a combination of information and gut feel. Say, 80% information and 20% gut feel. These proportions may change from person to person and same person from time to time depending on the myriad of factors that influence decision making.

A good example of an entrepreneurial decision is the Velneshwar venture which was just several acres of barren land representing a landscape of stones and red mud only. There was a dream behind the venture and the decision taken in 2008 has come to fruition by 2012. Today, Velneshwar campus houses Maharshi Parshuram College of Engineering which is a full fledged engineering college with the state-of-the-art facilities comparable to global standards.

<table>
<thead>
<tr>
<th>DECISION MAKING</th>
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</thead>
<tbody>
<tr>
<td><strong>PROS</strong></td>
</tr>
<tr>
<td>If market develops profitable</td>
</tr>
<tr>
<td>Company image improves</td>
</tr>
<tr>
<td>Provide alternative employment</td>
</tr>
<tr>
<td>Employee morale up</td>
</tr>
</tbody>
</table>

**Discussion:**

☞ Dr. P. M. Kelkar added that decisions which we take may not be liked by everyone but in educational institutes decisions should be student centric.

☞ Dr. (Ms.) Madhuri Pejavar shared her experience of decision making when an important decision was taken to start Biotechnology course.

☞ Ms. Srividhya Jayakumar added that most of the time she avoids taking decisions and project as if decisions have come from Chairman.
Mr. Subhash Shinde added that writing diary everyday also helps in decision making.

Dr. Murthy highlighted few points which influence decision making:

- Cost consideration
- Regulations
- Right to Information Act (RTI)
- Judgments of Courts

Some examples were shared by participants about their difficult situations which emerged as a result of tough decision making:

Mr. Narayan Barse shared an example of his time, when a student was caught copying and the next day he committed suicide. The learning for him from the situation was that the reporting for all matters should be done in accordance with the laws for the time being in force.

Ms. Srividhya Jayakumar added that discretion in decision making exists if and only the relevant legislation explicitly provides for exercise of discretion by a prescribed competent authority viz. Principal of a college or Director of an institute. Otherwise, there is no choice and discretion as such cannot be exercised. The decision maker has to comply with the letter of the law failing which it will amount to breach of law.
Mr. Subhash Shinde added that in the case of unfair means used by students in examination mostly decisions are in favour of minimum punishment to students caught in indulging in unfair means at the examination. However, an attempt is made to counsel the students so that they get a fair chance to reform and rehabilitate themselves.
Punishment to students in the case of unfair means, though constrained by the rules prescribed by the regulator University of Mumbai, can be given depending on the objects of punishment viz. deterrent, preventive, reformative, retributive and compensation. Deterrent aims at preventing delinquencies through infliction of exemplary sentence and creation of fear. Preventive punishment aims at disabling the criminal example: death penalty. Reformative punishment aims at reforming the delinquent by attempting to bring about a change in the personality and character through a process of reeducation and reshaping of the mindset of the offender. Retributive punishment provides revenge as the basis for punishment and propounds the philosophy that evil should be returned for evil. In the case of unfair means it is a choice between a combination of different approaches excluding of course retribution. The main purpose of punishment is to mould the mindset of the offender student in favour of a delinquent free life during the tenure of studies as well as in life. Again the said objects of punishment are not mutually exclusive. Therefore, it is left with the discretion of the decision maker to choose between the relevant objects and balance between the same within the rules of the University, the policy of the institutions and last but not the least the exigency of the situation in terms of the intensity or otherwise the offence.

**Exhibit 21: Objects of Punishment – Unfair Means**

The session was summed by saying that individuals and / or groups involved in any activity are equally accountable for the consequences of decisions made jointly.

Dr. Murthy said that decision making starts where formula ends as presented below:
By its very definition-making starts where formulae end and where judgment has to be exercised, the imponderable has to be evaluated the intangible has to be assessed.

- Dr. K. S. Basu

And again, Dr. Murthy said there is no such thing as right or wrong decisions. However, decisions have to be taken in decreasing response time to meet the exigencies of various situations. He presented the views of Mr. Alfred Sloan as shown below:

**The New York Times**

*FRIDAY, JANUARY 17, 1964*

Reported the following exchange between Alfred P. Sloan, former Chairman of the Board of General Motors, and a reporter:

A reporter asked, Mr. Sloan if he had made any mistake in 40 years as a top executive of General Motors and added “Think of one”. “I don’t want to keep you up all night”, Mr. Sloan snapped. “*The executive who makes an average of 50-50 is doing pretty good.*”

**Exhibit 22: Mr. Alfred Sloan on Decision Making**
**Decisions:**
- Decisions have to be informed and calculated.
- Data is converted into meaningful information.
- Information into knowledge.

**Need to Understand:**
- Data
- Information
- Knowledge
- Wisdom
- Gut Feel

**Decision Making:**
- Balancing between:
  - Risk and Return
  - Risk Takers
  - Risk Averters

**Infosys Philosophy**

"the foundation of our corporate governance philosophy at Infosys is the belief that it is better to lose a billion dollars than to act in ways that make one loses a night’s sleep”

**Decision Making Styles:**
- Dictatorial Approach
- Gandhian Approach
  - Ahimsa, Consensus, Pacifist
- Humane Approach

**Impact of Judiciary on Management Decision Making:**
- Legal environment given by laws in force.
- Constitution represents the basic fabric governing our multi-racial, multi-lingual & multi religious society.
- Constitution is 'law of laws'.
Judiciary Again:

- Decision making guidelines vary from judge to judge.
- Same judge may have different approaches to decision making on different occasions.
- Conceptual issues too.

Decision Making Approaches:
Dr. (Ms.) A. Goswami-Giri addressed an all important theme viz. Research. Presenting her learnings from research from foreign countries, she discussed issues relating to level of research, language and cultural differences. She also spoke on the discrimination vis-à-vis developed countries and highlighted the strengths and limitations. Dr. Goswami-Giri’s presentation presented below is self explanatory.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Manpower/capability</td>
<td>• Advancement in languages</td>
</tr>
<tr>
<td>• Training the Trainers</td>
<td>• Organization skill</td>
</tr>
<tr>
<td>• Multitasking thinking</td>
<td>• Basic Research</td>
</tr>
<tr>
<td>• Quality of research</td>
<td>• Collaborative research</td>
</tr>
<tr>
<td>• Patience</td>
<td>• Expt. Set up borrow from other institutions /</td>
</tr>
<tr>
<td>• CARL System, epernicus, RSS, Linked in, or</td>
<td>• Concentration</td>
</tr>
<tr>
<td>social cites</td>
<td>• Technology/ instruments</td>
</tr>
</tbody>
</table>

Exhibit 23: Discrimination vis-a-vis Developed Countries
Lessons from Research in Foreign Countries

Dr. (Mrs.) A. Goswami-Giri
B.N. Bandodkar College of Science

Level of Research

• Time management
• Quality
• Technology
• Group work/Collaborative Research
• Language
• Finance
• Infrastructural facilities
• Administrative Hurdles
• Patience

* Collaboration with in the higher education research sector is crucial tool for growth.

Language

• Part I: Covers international research and developments in early language learning. It presents the research evidence on the benefits of starting to learn a foreign language in primary school or earlier, as well as current policy developments and approaches in other nations.

Part II: Focuses on the issues and challenges which are common to all education systems and need to be addressed if primary language teaching is to be a success. These are:

• A suitable curriculum with adequate time allocation.
• A sufficient number of well-trained teachers
• A careful management of transition between phases.
• Age-appropriate pedagogy.

Organization of Conferences / Workshops

• Cultural differences, stage etiquette, Attire

Organization of subjective matter:
1. Poor organization. Presentation and/or display out of sequence. Presenters seemed somewhat lost. Little to no evidence of enough time spent preparing.
2. Some organization. Presentation and displays seemed organized. Presenters had knowledge of information being presented. Evidence of time spent preparing.
3. Well planned organized conferences. Fluid transition between category information. A lot of evidence of time spent preparing. Organized display of information
Information in research

- Very little information provided. Half or less than half categories/information provided.
- Not much time spent researching information.
- Most information provided. Almost all categories covered. Evidence that some time was spent researching information.
- **All information provided.** All categories were well covered. Evidence that plenty of time was spent researching for information.

Display/Material

- Information poorly displayed.
- Trouble understanding information displayed.
- Little to no materials used. Little to no images provided.
- Average display.
- Information legible (able to read).
- Able to understand most information displayed.
- Some images provided to illustrate information.
- Well put together display. Information easy to understand. Plenty of images and illustration provided.
Dr. (Ms.) N. Patil made a presentation on examination system at B. N. Bandodkar College of Science and its role in improving the quality of education. She compared and contrasted the earlier system of evaluation which was based on marks with the credit based system in higher education for UG and PG classes launched by University of Mumbai in 2011-12. The main reason for the change was to seek parity with international system of evaluation so that admissions to foreign universities can be smoothened to appropriate comparisons and also to shift the focus from teacher centric to student or learner centric. She presented all the merits of credit based evaluation and how the motivational levels of teachers and students have improved thus, making the teaching learning process a relatively pleasant, enjoyable, less burdensome, more flexible and to that extent effective. However, the flip side of credit based system includes the predominance of testing due to continuous evaluation and hence the consequent pressure on teachers and students. As mentioned by her ‘the numbers of days spent on evaluation are more, as a result of which learning or teaching days are minimised’. Another disquieting feature of the credit based system is the stress caused to teachers and those responsible for the administration of examination. Nevertheless, she opined as follows:

☞ If student numbers (student : teacher ratio) and honesty, sincerity are maintained, the credit based system can be used fruitfully. She asserts further that the credit based system is definitely superior than the conventional marking system and several premier Institutions and
Universities of high repute in India as well as abroad are using the credit based system successfully.

Dr. (Ms.) Patil concluded her presentation by highlighting the redeeming features of the innovative steps taken by the college to make the credit based system workable and as effective as possible.
Earlier System of Evaluation

- Evaluated the performance of a student at the end of an academic year or half yearly (Semester system).
- Evaluation was done within three hours of examination to find learners' mastery over subjects in the curriculum.
- Passing standard was 35%

- Passing was aggregate in all the papers of particular subject with minimum marks in each paper.
- Score of second Semester also considered for passing in particular subject to gain 35% marks and report was yearly.
- Sufficient time for participation in extracurricular activities due to yearly pattern of evaluation.

Credit system makes education more broad-based.

- Giving flexibility to the learners, allowing them to choose inter-disciplinary courses, change majors, programmes, etc.

In fully implemented credit based system

- One can take credits by combining unique combinations. For example, if a learner is studying biology, he/she can also simultaneously take a course in music, etc. (Inter disciplinary credits are not yet possible)
• Allows learners to choose courses according to their own learning needs, interests and aptitudes.
• Facilitates Learner Mobility. Offers the opportunity to study at different times and in different places.
• Allows transfer of earned credits from one institute to other.

Syllabus is reformed in credit based system.
• The value of a particular course is measured in number of credits and Credit Points.
• Credits are defined in terms of the learner’s hours of learning.
• The value of One (01) Credit is equal to 30 Hours.
• Learning hours are divided into two parts – Actual and Notional.

• The hours actually spent in class room / practical / field work instructions are considered as Actual learning hours
• The hours spent for self study in library, institutions or at home, case study, writing of journal and assignments, projects etc. by the learners him/her self for the completion of that course - Notional hours

• helps to record learners workload realistically since all activities are taken into account - not only the time learners spend in lectures or seminars.
• Time spent for individual learning like preparation for examinations, writing journal etc. is also part of learning hours.

Credit system – Evaluation method
• excellence in quality education can be achieved by evaluating the true ability of the learners with the help of continuous evaluation.
• allows application of multiple techniques of assessment of the learner’s performance by continuous evaluation.

The scheme of Examination
• Internal Assessment which includes Assignments, Seminars, Case Studies and Unit Tests - carries 40 marks.
• the Semester End Examinations which is of 60 marks.
• allocation of marks for the Internal Assessment
  Internal Assessment – 40%     40 Marks
• One class test held in the given semester     ---    20 Marks
• Subject specific Term Work one -
  (like Extension/field/experimental work, Short Quiz; Objective test,
  lab practical, open book test etc and written assignments, Case
  study, Projects, Posters and exhibits etc class presentations     ---    10 Marks
  Active participation in routine class instructional deliveries and in
  practical work, tutorial, field work etc)                   ---    5 Marks
• Overall conduct as a responsible learner, mannerism and articulation
  and exhibit of leadership qualities in organizing related academic
  -----  5 Marks activities

Thus Credit system
• allows application of multiple techniques
  of assessment of the learner’s performance by continuous evaluation.
• Helps in finding out true ability of student.
• Lessens the burden as evaluation is by internal and term end examination.

In old system
• Learners result was based upon aggregate performance in both exams.
• If student failed to achieve good score in any subject in first semester he could
  compensate by scoring more in second semester for passing in that subject.
• Passing was aggregate in all the papers of particular subject with minimum marks condition.

• Credit based system evaluation based upon continuous assessment.
• Student has to clear both internal and semester end examinations to get credits
  assigned for that course (Subject).
• Passing standard in old system was 35% while in new system to get successful remark
  student has to secure 40 % marks separately in internal as well as external examination.

• In old system if student failed in one of the papers of a subject, he has to give both
  papers in case of F.Y.B.Sc. and all the three papers of that subject at S.Y.B.Sc.
• Stressful to student, loss of confidence after repeated unsuccessful attempts.

• PASSING STANDARD
• Minimum of 40% marks in each course where the course consists of Internal Assessment and
  Semester End Examination.
• Minimum of 40% marks (i.e. 16 out of 40) in the Internal Assessment and 40% marks in Semester End Examination (i.e. 24 Out of 60) separately, to pass the course and minimum of Grade E to pass a particular semester.
• Learner is considered as successful if passes in the Internal Assessment and Semester End Examination together.

In old system
• Learners result was based upon aggregate performance in both exams.
• If student failed to achieve good score in any subject in first semester he could
  compensate by scoring more in second semester for passing in that subject.
• Passing was aggregate in all the papers of particular subject with minimum marks condition.
In credit system even if learner clears one paper of a subject and unsuccessful in others of that subject his/her marks of that paper are carried over and he/she shall be entitled for grade obtained by him/her on passing. This has minimized the burden of studying other papers.

Learner has to reappear for additional exam only in paper in which he/she is unsuccessful.

In old system of evaluation, once student takes a ladder of ATKT and fails to clear the exam, remark on the report card was 'pass class'.

In credit system, students marks are carried forward and they get appropriate grades on passing.

In credit system Additional or ATKT exams are conducted immediately so learner can brush up his subject knowledge and give additional examination. In old system students had to wait for six months for ATKT and failure examination.

Apparently credit system appears to be better system benefitting students. However it has certain drawbacks:

- The days spent on evaluation are more and actual teaching days are less.
- Teachers are spending lot of time in evaluation work where number of students is very large and they do not get sufficient time for completion of syllabus.

Due to continuous evaluation method, students are not getting enough time for other extracurricular activities.

- Learner is under continuous pressure of either internal examinations class test, assignments project presentation etc. or Sem. End examination.

- Lot of confusion regarding form of credit system which leads to constant changes in the rules and regulations creating lot of stress on students and staff. eg. scaling down of internal marks.

- Implementation of Credit based system is an appropriate step in our education system but considering number of students per course, it is giving lot of stress to teachers as well as examination committee.
If student numbers (student:teacher ratio) and honesty, sincerity are maintained, the credit based system can be used fruitfully.

Definitely credit based system is superior than the conventional marking system and several premier Institutions and Universities of high repute in India as well as outside are using it successfully.

Some Innovative steps taken by our college to run system more effectively.

- Orientation lectures to explain exam system, ATKT rules
- Display plan for all exams in advance for all semester so that students can plan their other activities.
- Prepare separate departmental files to keep the record for all semester. We are very transparent in keeping records. This help us in locating defaulters very quickly. Files are checked frequently by examination committee.

Our IT department handles the process of grade-card preparation very efficiently.

Once grade cards are ready, students are assembled in college auditorium, examination committee members explain various terms used in grade cards to the students.

Unsuccessful students are directed to respective departments for remedial lectures.

In the case of students who remain absent for internal or external examinations - parents are called and idea about students performance is given.

From this year onwards college has decided to make a significant change by enrolling student on PRN number which will remain upto graduation level from his date of admission and all his/her evaluation will be done on same number throughout his college life. This will help in tracing students previous years performance very easily.
The theme of Dr. (Ms.) Madhuri Pejaver’s presentation was ‘What Education is and What Education Ought to be?’ in the context of the call of rising above and beyond excellence for VPM’s GOI. Dr. Pejaver presented different definitions of education and traced different models of education viz. learning at home, learning in school, learning even through garbhasanskar, gurukul system and eventually the system of school. She lamented on the outdated syllabi of various courses and said that such obsolescence adversely affects the quality of education. Further, she enumerated variety of reasons which cause missing links in the approach of students and teachers to education as shown below:

- Due to nuclear families the heritage of sanskar transmitted by forefathers is missing now.
- Heavy influence by media both on parents and children.
- Missing idols.
- Missing ambitions.
- Easy go attitude.
- Many attractions.
- Spoon feeding from childhood, in schools and colleges.
- Lack of readyness to work hard.

Exhibit 24: Current Scenario
She said that all the above factors adversely affect education. However, she reassured through her optimistic approach as to how to respond positively to the call of rising above and beyond excellence as seen below:

- It is time to think for our institutes to be the new islands of knowledge by bringing the possible reforms in our teaching and learning processes.
- It is time to think to utilize all the possible resources which are made available to us on this island of knowledge.
- It is time to make ourselves more responsible teachers in this competitive world of education to be teachers responding positively to the call of rising above and beyond excellence.

**Exhibit 25: New Mindsets for RAABE**
What Education Is and What Education Ought to be?

Rising ABOVE AND BEYOND EXCELLENCE
Dr. Madhuri Pejaver
B. N. BANDODKAR COLLEGE OF SCIENCE

Education

Dr. S. Radakrishnan says that important and urgent reform is needed in EDUCATION to make it a powerful instrument of social, economic and culture transformation necessary for the realization of national growth.

➢ According to Wikipedia education in its general sense is a form of learning in which the knowledge, skills and habits of a group of people are transferred from one generation to next through teaching, training and research.
➢ It is also noted in Wikipedia that education frequently takes place under the guidance of others but may also be autodidactic. Any experience that has a formative effect on the way one thinks, feels, or acts may be considered educational.

➢ Education according to me is teaching, learning, understanding, assimilating, reproducing and applying knowledge.
➢ Most of the time it is said that education is not job oriented.
➢ But education does not have these small boundaries of just getting a job.
➢ The great philosophers like Swami Vivekanand, Ravindranath Tagore, Mahatma Gandhi are all renowned and remembered, even today, for their noble thoughts.

➢ Our great saints like Bahinabai, Namdeo, Tukarem, Dyaneshwar.
➢ Can we call them as educated in the sense we define education?
➢ They surely have created such a knowledge base which is of great use for our education.
➢ Education is not restricted to reading some books, memorising them and giving some examinations.

➢ Education according to me is not only learned and taught in schools and colleges
➢ education starts at home even before the child birth.
➢ We call it ‘Garbhasanskar’. along with the mother every person at home IS EDUCATING THE child growing in the womb. ALL OF US ARE FAMILIAR WITH THE STORY OF ABHIMANYU AND Chakravyuha.
➢ Effects of isolated/nuclear families.
➢ Gurukul system latter where the gurus were all rounders and the students /disciples use to be residential.
Latter came the system of school
Students/learners are in the schools or colleges for specific time.
Teachers are in these institutes as per the workload.
Very less personal contact with the students.
Teachers teach and students learn only in the limited time period assigned to the subject.
The knowledge is thus bound to the books which previously were reference books now are the text books. And many a times only notes.

Curricula when designed rarely meets the need of the hour.
Many a times the topics of syllabi are moved from first year to second and from second year to third. no deep thought is given for the actual requirements.
Due to globalization we need to have education which will make our students competent to face the world. This can be done only with proper planning.
We started the planning of Zoology syllabus in 2012, completed in 2013 and will be implementing in 2014.

All these factors affect the education.
Learning languages for those other than arts students is not liked. They are left in options to be read in the last minute.
This leads to lack of communication skills.
Education is oriented around marks. But having good marks doesn't guarantee the student to be knowledgeable.
Ethics, values for many are secondary.

People involved in planning the education need to be very competent, who can and should think in depth/have a proper plan and change the whole system.
The education system now has become examination oriented. in the preparation for examination what students get might be only information and not knowledge.
Library underutilised.

Thus even today we have to rethink about what radhakrishnan has said to have a reform in our system
In our old system we had 12 balutedars who were experts in their fields.
Can we add such type of expertise in our education system?
Say some additional credits for dance/ncc/nss/drama/music etc.?
Can we have open book system for examination?
Can we give more hands on experience to students?
Can we give some more time other than contact hours to students?

What the education ought to be?

Better than what it is for sure.
Discussion:

Post Dr. (Ms.) Madhuri Pejaver’s presentation, there was a discussion on a few important points. Dr. Guruprasad Murthy asked a question as to how many hours of work per day do teachers put in?

☞ Dr. R. Athalye opined that 8-10 hours of working is more than enough, everyone should get time for leisure. He added that we are compelling everybody, including students, to be in the race in this fast moving world and time is a crucial factor.

☞ Dr. (Ms.) Madhuri Pejaver opined that today students are not hard working. Further, she said students lack in writing and communication skills. Higher percentage does not necessarily mean higher knowledge. She quoted the example of Latur (Maharashtra) pattern – A girl who topped the board examination of 12th standard, a few years back, committed suicide. The reason: ‘she was unable to cope up with the medical syllabus’.

☞ Teachers should not cross limit (Lakshman Rekha) in terms of ethics and values.

☞ ‘Open Book Examination’ should be prevalent. However, Dr. Guruprasad Murthy opined that for an open book examination system to be effective, the question papers should be of good quality and high standard so that the answers to the questions are not at all readily available in the book.

The discussion concluded with Dr. (Ms.) Madhuri Pejaver’s statement “that it is time to make our teachers more responsible”.
Dr. (Ms.) Shakuntala Singh’s views were read out by Mr. Subhash Shinde.

What is education? Is it information...is it teaching ...or something more...that ‘X’ factor. There should be clear vision and mission. Education is a continuous process...Shravan, Manan and Chintan ....listening, concentrating and mediating. Teachers who can't deliver should be fired. Understanding and analysis of the other side(students) is important. Human values are missing. Why suicide cases are increasing? Why stress is increasing? Why trust on others is decreasing? What is the ‘X’ factor? ICT(Information and Communication Technology) which transforms- information into knowledge and eventually into wisdom needs to be understood. Still education makes us more positive, happier and peaceful. Education makes human beings wise who are then able to share happiness positively and peacefully.
Drawbacks of Law colleges are:
There are no full time teachers, no dean. However, lectures as such are not conducted the way they should be. Then she added that education should be liberal, should be able to transform human being into a knowledgeable person. She suggested that we should facilitate improved communication in English by making improvement courses available at an affordable cost. Otherwise rising above and beyond excellence is not possible. She added that some students are afraid of coming to our college campus. We should make them feel that they are at par with other students and they are not inferior in any manner. She added that students should be encouraged to do research. While commenting on the quality of education, she said NAAC has reaccredited one Commerce college confirming the timings from 6 pm to 8 pm in the evening only for 2 hrs. So there is a question mark on NAAC accreditation as well. She concluded by saying that educational institutions owe the responsibility of providing students who are well equipped in their field of interest.
Education must bring transformation and should be able to produce good human beings as a result. She suggested that individual identity should be recognised as everyone is not the same. She quoted the example given by CA Dr. Vishnu Kanhere that all the fingers are not the same. She illustrated the Horse vs. Donkey situation by saying that “A donkey cannot be a horse. However, by training one can make the donkey better than the other donkeys. This is the best that can be done”.

Then, she added that with the help of our senses we can do wonders. One should be the master of one’s senses. To look to ourselves we require a mirror. Everyone should see through the mirror for his or her own improvement. Then she shared Swami Vivekananda’s example. She said one’s mind is like a monkey which may be prone to madness, and become SATANICAL, if inebriated. She concluded that it’s up to us how to make good use of education and our senses.
Dr. K. Desai initiated his presentation by raising a question viz. why Dr. Vijay V. Bedekar selected ‘Velneshwar’ for his dream project?

Our brain works great because of ozone and oxygen. He then added the example of the Marathi movie ‘Kaksparsh’ where the place ‘Palshet’ has been captured very beautifully.

He said that when we go to villages, we see many of the kids from backward community are in need of education. At the Engineering College at Velneshwar, there are many innovative and useful things like:

- Solar energy generation system to be utilised for many things e.g. cafeteria on the terrace.
- Latest AutoCAD lab.
- Separate hostels for girls and boys.
- Buyback and distribution of plants for revenue generation.
- Introduction of concept ‘Edu-Tourism’.
- Conducting competitions for nearby schools called ‘Srujan Competitions’.
- Use of computers in Marathi is encouraged. The necessary wherewithal has been developed for conducting various computer literacy courses.

Dr. Desai concluded by saying long term sustainability should be there. For Velneshwar Project, there is long way to go ahead with the support of all.
A Presentation by

SRUJAN KENDRA
Science & Technology Centre
VPM’s Maharshi Parshuram College of Engineering (Velneshwar)

Mission
To Be The Change
by Empowering Students & facilitate Rural Development in neglected Areas of Konkan Coastal belt
USING A SCIENTIFIC APPROACH

Suitability of Location

• Why Velneshwar, In Rural Maharashtra
• SRUJAN has identified that Velneshwar although backward in terms of development in civic and educational infrastructure, has tremendous potential to evolve as an education, innovation and research hub.

Salient Features

• The area around the MPCOE is highly backward and needs support to catch up with modern developments. The schools teach prescribed subjects routinely and hardly encourage any innovation.

• MPCOE having Wifi Connected Campus with intranet Facilities.

Long term Sustainability of Centre

• a museum where scientific models will be kept for exhibition and sale to school children
• Women empowerment by giving technology for vermicompost fertilizer.
• The centre has potential to become a hub for Eco-Tourism & implement novel concept of Edu-Tourism.
• Empowerment to LOCALS
Initiatives By SRUJAN

• Teachers’ Training Program gave training to 100+ teachers
  for use of computers in Marathi.
• AAKASH - II Workshop for the teachers and students
• Career Guidance Lecture - Ideal foundation trust, Mumbai
• 'Srujan' competition for 12th Science students
• MH-CET crash course (27 March to 30 April 2013)
• Nearly 250 students of 12th Science from nearby schools
  visited the college during the last 2 months

Long term Sustainability through
Distribution of Plants/ Buyback & Revenue Generation

• Distribution of plants to near by 650 schools
  and buyback for selling them to industries.
• By selling medicinal plants, fruit & flower
  plants with DNA information.
• Manufacturing of identical plants using
  Tissue Culture Laboratory Support.
• MPCOE has contacts with with
  ➢ Vaze Kelkar perfumery, Mumbai
  ➢ Codon Biosciences, Panaji
  ➢ Sandu Pharma, Mumbai
  ➢ Phondaghat Pharmacy, Mumbai

Long term Sustainability through Revenue Generation

Women Empowerment through Technology Support for
Vermicompost Fertiliser Production

Long term Sustainability through Eco Tourism for Revenue Generation

• Guided Tours through the Countryside
Long term Sustainability through Edu Tourism for Revenue Generation

- Solar Energy 40 KVA generation (above Coffee cafeteria)
- Solar Water Heater

SOLAR PANELS in Innovative Edu-Culture at College & Home

- Support Fan, LED Lights, Stair Case Light
- Neck Microphone Audio System in Class Room
- Telephone & Mobile Chargers
- Hot Water on table all the time
- Electro Fencing and Alarm System
- Air Purification and Dust Removal
- Mini Water Pumps for Gardening
- Earth Heat Exchange Temperature control to save electrical power.
- Technical know how to build Solar Energy
- Rs. 1600 per 15 Watt Solar Panel
The first question raised was ‘What is Management?’

☞ Ms. Rashmi Agnihotri, "Management is a systematic process embracing planning, organizing, staffing, direction, execution and control".

Example: Teaching Plan (TP). The purpose of this plan is planning, systematic execution, self discipline and self initiated control

☞ Dr. Guruprasad Murthy said that actual activities should be consistent with the intended. The lectures should be spread over through the entire term/semester. It should not be concentrated either initially or towards the end. DR VN BRIMS (University of Mumbai) prescribes the teaching plan for MMS.

☞ Ms. Sukhada Tambe takes the feedback from students, from coordinators and gives it to the Director. In addition, Director can monitor on-line too.

☞ Dr. (Ms.) Madhuri Pejaver commented that leave of teachers should be planned.

☞ Ms. Srividhya Jayakumar added that at Law college, teachers teach very slowly initially and towards the end finish the syllabus in a hurry. Visiting teachers unnecessarily stretch the number of sessions.

☞ Dr. Guruprasad Murthy added that teachers should do introspection.
The session on strategic management explored, after defining management, as shown in the adjacent slide, a wide variety of topics related to the management process viz. planning, change management, the strategic groundwork required to roll out the management process in terms of vision, mission and goals, control, leadership, manager v/s. leader, conflict management, team work, communication and motivation. A bird’s eye view of the slides discussed in the conference is presented below:
Planning:

Where we are???
Where we want to be???
How are we going to get there???

Challenges of Initiating Change:

“Don’t have the time for this stuff”
“We have no help!”
“This stuff isn’t relevant”
“They’re not walking the talk”

Bad News, Good News:

- Bad news to be communicated as fast as possible.
- Good news can follow.

Control Vocabulary:

- Responsibility
- Authority
- Accountability
- Decentralization

A picture of the "preferred future;" a statement that describes how the future will look if the organization achieves its ultimate aims.
**Vision** – where you are heading
- Is brief
- Idealistic and imaginative

**Mission**
- A statement of the overall purpose of an organization. It describes what you do, for whom you do it and the benefit.
- Defines your fundamental purpose(s)
- Principles by which you operate
- Contains:
  - Purpose statement
  - Business Statement
  - Values

**Goals**
- Specific measurable components aligned with mission and vision statements
  - Specific & measurable
  - Manageable
  - Require action

**Objectives**
- Specific, quantifiable, realistic targets that measure the accomplishment of a goal over a specified period of time.
Objective – action step taken in order to meet goals
- Individual action steps
- Address specific goals
- Usually multiple objectives are written for each goal

Criteria for Objectives: S M A R T

- Specific
- Measureable
- Achievable
- Relevant
- Time-Bound

Managers Vs. Leaders:

<table>
<thead>
<tr>
<th>MANAGER</th>
<th>LEADER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administers</td>
<td>Innovates.</td>
</tr>
<tr>
<td>Maintains</td>
<td>Develops</td>
</tr>
<tr>
<td>Relies on systems</td>
<td>Relies on people</td>
</tr>
<tr>
<td>Counts on control</td>
<td>Counts on Trust</td>
</tr>
<tr>
<td>Does things right</td>
<td>Does the right thing</td>
</tr>
</tbody>
</table>

Conflict Management:

Ideally people like to avoid conflict.
However, Conflict is a way of life.
Hence, conflict resolving mechanisms.

Team Work is a Paradigm

Team Work is a Process
**Team Building:**

Together
Everyone
Achieves
More

**Communication:**

Impact of Communication through:

![Bar graph showing impact of communication through different channels:
- Non-Verbal: 55%
- Tone: 28%
- Environment: 10%
- Words: 7%

**What is Motivation?:**

Motivation represents, the forces acting on, or the stimuli within, a person that cause the person to behave in a specific, goal directed manner.
Discussion:

Dr. Guruprasad Murthy said that *‘action is key to management’*. Teachers are like managers. He correlated the example of a production manager with respect to teachers and cited the key performance indicators viz. quantity (no. of hours of lectures taken), quality (measured by feedback, content, scholarship, erudition and other measureable dimension, time (delivery schedule), cost/unit. Thus, the nos. of hours of sessions taken can be converted into a monetary value using a surrogate like amounts paid to visiting faculty for similar sessions on per hour basis. This gives a quantified version of the extent of recovery of the monthly salary paid or the contribution of teachers in financial terms. It also helps management and teachers to understand the gap between the salary paid and the financial contribution, thus, making it necessary for teachers to provide value adding services which meet and preferably more than offset the gap. If the aggregate financial contribution of teachers is less than the salary paid there is an unfavourable variance. However, if the aggregate financial contribution is $\geq$ than the salary paid, it is a self supporting or a surplus generating centre. Such surpluses can be seen in institutions where third party research, consultancy work, revenue generating value added services and any other teachers driven revenue generation are conspicuous. The focus is not on profit or money generation. It is on the viability of the economic system, particularly human resource utilization, governing management of education. Thus, the performance indicators for a teacher are expressed in physical, financial, quantified and non-quantified terms. VPM’s GOI are excellent by virtue of their unique and distinct contribution as well as the accreditation and other accolades showered on them thus far. However, the Chairman, Dr. Vijay Bedekar has raised a timely alarm by saying that there is a need to address the call of
RAABE for which our levels of excellence should meet, to start with, global standards.

☞ **Mr. Deepak Murdeshwar** commenting on implementation and said that syllabus should be completed on time, all the lectures should be held properly as per the schedule. Examination should be held with good quality question papers.

☞ With respect to library, **Dr. (Ms.) Madhuri Pejaver** added that ideally e-mails from publishers to Principal should be forwarded to Librarians and eventually to teachers. Post approval, action of buying should take place. She added that actually this is not happening. The librarian keeps all the mails from the Principal in one folder rather than forwarding it to teachers for approval. She also commented on language usage and quoted the example of a question paper in SMS language and the case went to the court.

☞ Talking about leadership, **Dr. Guruprasad Murthy** mobilised ideas from the audience who opined that, a leader should build a team, motivate the team, handle crisis effectively, lead from the front with dignity and honour, be a person who gives the best and extracts the best from the team, be ready to accept accountability and be transformational et al. **Dr. Murthy** continued that transformation should be from where we are to where we want to be – from excellence to ‘*Above and Beyond Excellence*’ in case of VPM’s GOI.

There was also a discussion on the concept of ‘*People Oriented Leader*’.

☞ **Ms. Sukhada Tambe** said people oriented leader is one who listens to all. However, such leaders make decisions on their own.

☞ **Dr. (Ms.) Madhuri Pejaver** questioned – Can a people oriented leader be a mentor?
Ms. Aditi Deuskar said that people oriented leader is one who changes role as per the situation.

Mr. Subhash Shinde added that people oriented leader with respect to educational institutes is one who pushes the teachers to do research.

Dr. Guruprasad Murthy further initiated a discussion on ‘Motivation’.

Ms. Sukhada Tambe said motivation means awakening the inner soul.

Others added that motivation is encouragement, inspiration, urge to transform (transformation).

It’s a process by which “Leaders and followers rise one another to higher level of morality and motivation”.

Transformational leaders motivate followers’ by appealing to strong emotions.

- Burns (1978)
Dr. Murthy added that Motivation Means Developing Three Bones:

**Exhibit 28: Motivation Means Developing Three Bones**

The discussion then shifted to the meaning of performance which is a function of attitude and competence. Organizations of current times tend to seek higher and higher levels of performance with a view to attain, maintain and sustain their competitive edge. Performance is functionally related to attitude (a) and competence (C) which is a composite basket of traits viz. Aptitudes (A), Skills (S) and Knowledge (K). Accordingly:

\[ P = a \cdot (ASK) \text{ and since } C = ASK, \ P = a \cdot C \]

Traditionally, performance (P) was perceived as a physical product of Will and Skill. In the enlarged and enlightened context, meaning of Skill, is assumed to be synonymous with ASK. Competence, which includes ASK – is similar to Skill. Again, Will as traditionally used, is synonymous with attitude (a) which is already defined.

Thus, performance even with the concept of skill and will, when revisited with the state of the art knowhow leads to the equation:
Dr. Murthy gave the concluding remarks that ‘Attitude’ can create serious problems. Hence, many companies pay a lot of attention to attitude at the point of recruitment.
The speakers appreciated the efforts taken to bring all teachers under one roof to give serious thought on education through this conference.

☞ Dr. (Ms.) Madhuri Pejaver commented that there has to be appreciation of arts while teaching science as well.

☞ Dr. Guruprasad Murthy commented that aesthetic awareness is important. He added that monologue should be avoided and interactive sessions should be encouraged.

☞ Dr. (Ms.) Shobha Doshi added that through the monthly activity of ‘Swarganga’, an attempt was made to convert bathroom singers into stage performers.

This presentation explored a viable model of excellence for the Arts college. After presenting an overview of the present state of affairs, the presenters have provided several suggestions which can possibly enable the Arts section to respond positively and proactively to the theme RAABE. They have also presented a model which can facilitate the process of RAABE as shown below:
They concluded by presenting the challenges of excellence in Arts education and a quote which reads as follows:

“Excellence is never an accident; it is always the result of high intention, sincere effort, intelligent direction, skillful execution and the vision to see obstacles as opportunities.” --- Anonymous

Exhibit 29: A Model of Excellence for VPM’s K. G. Joshi College of Arts, Thane

Exhibit 30: Quote of the Day......
A Model of Excellence for VPM’s KG Joshi College of Arts, Thane

A Presentation of Group 1
Members-
Mrs.Rashmi Agnihotri (Head, Commerce Dept.)
Mr.Pramod Kharate (Head, English Dept.)

An Overview of the College....
Established in 1969.
Permanently affiliated to University of Mumbai from June 1982.
Re-accredited with ‘A’ Grade by NAAC in Jan 2011.
Best College Award by University of Mumbai
Became first Community College (University of Mumbai)

Mission Statement
‘From information to knowledge and knowledge to wisdom’

Vision Statement
‘To nurture and foster an innovative academic environment for critical thinking, all-round growth and continuous development of students and staff to make them sensitized and responsible citizens.’

Goals/Objectives of the College....
➢ To provide an atmosphere of learning and encouragement to all students and staff.
➢ To motivate students to achieving excellence in academic and other fields.
➢ To inculcate values for holistic development and character building.
➢ To encourage and imbibe ICT skills that gives students a competitive edge.
➢ To prepare students to take their rightful place in society and contribute to national development.

Programs and Services....
➢ Bachelor of Arts (BA) with specialization in English, Marathi, Hindi, Sanskrit, Philosophy, Economics, Politics, History, Geography and Psychology (all 6 papers) and Statistics (3 papers),
➢ Masters in Arts (MA) by Research and Research Center for PhD in Philosophy
➢ Permission Awaited for MA (Philosophy) by Papers
➢ MA (Hindi) by Papers

UGC-Sponsored ADD-On Certificate Courses-
Conversational English
Gandhian Philosophy

Facilities and other Support Services....
Library Computer Labs
Gymkhana Lang.Lab
Sports Academy Talent Academy
Cultural Activities Scholars Academy
Speakers Academy Research Academy
NSS,NCC,WDC Civil Defence
Placement Cell DLLLE
Generation Dialogue Film Society
Students’ Forum Students’ Council

Current Scenario of Academic Structure..
Governing Body Library
Administrative Heads Community College
Faculty/Staff Environment
Learner Parents
Curriculum Stakeholders
Academic Programs Placements
Support Services Examination & Evaluation
Resources People-Orientaion
Infrastructure Outcomes
Features of the Institution.....
- Efficient Management
- Dynamic Leadership
- Able Administration
- Dedicated and Committed Staff
- Academic Excellence
- Research Promotion
- Quality Infrastructure
- Social Relevance
- Character Formation
- Healthy Practices

Purpose of Arts Education.....
- Foster broad dispositions and skills.
- Teaches artistic skills and techniques.
- Develops aesthetic awareness.
- Provides ways of pursuing understanding in the world.
- Helps students engage with community and social issues.
- Provides a venue for self-expression.
- Helps students develop as individuals

Towards Rising Above and Beyond Excellence...
- Institutional goals need to be consistently pursued
- Merit should be practically implemented
- Institutional Autonomy
- Quality Faculty
- Quality Infrastructure
- Achieving and Sustaining Quality in Education
- Teacher-Learning Methodology
- Application of ICT
- Conducive Environment for Teachers & Learners
- Need-Based /Market-Orientated Curriculum
- Academic Strategy
- Financial Strategy

Towards Rising Above and Beyond Excellence...
- Value Education
- Employee Education
- Academic Partnership
- Public Accountability
- People-Orientation
- Addressing the needs of the Society
- Education to be accessible to the Disadvantaged
- Community and National Development
- ICT-based Education
- Inculcation of Spirit of Research and Enquiry
- Culmination of Ability of Creativity into Innovation

Towards Rising Above and Beyond Excellence...
- Nurturing Excellence and Global Competitiveness
- Supervising and Mentoring
- Promotion of Research Environment
- Keeping teachers morale high
- Multiple Roles of a Teacher
- Multi-disciplinary Approach
- Holistic Approach

Challenges of Excellence in Arts Education..
- Unsuitable/Defective Curriculum
- Lack of proper policy Formulation
- Lack of Qualified Teachers
- Wastage of Resources
- Lack of knowledge of Teaching Methodology
- Problems of Medium of Instruction
- Lack of Job-Oriented Courses
- Lack of Specialised Education
- Dearth of Students
The speakers shared the information that the group members met thrice for brainstorm sessions with reference to their presentation on the theme of ‘Academic Excellence’.

This presentation which explored 17 academic excellence models presents a composite view of how to RAABE and focuses on six models using NAAC as the frame of excellence. The excellence factors beyond NAAC criteria have been presented below:

- Graduate Employability [QS START]
- Third Mission: Measuring areas of social and civic engagement [QS START]
- Criteria for specific subjects [QS START]
- Publication per Faculty Member [QS-Latin America]
- Ratio of international to domestic students [THES]
- Critical, creative and analytical thinking of students [Wisconsin]
- Defined Learning outcome [SEAB]
Academic Excellence Indicators

- Seventeen sets of Indicators
- Over 120 Parameters/criteria
- There are overlaps
- What should we learn from this?
- Identify what is not in NAAC criteria
- This is 'Rising above and Beyond Excellence'
- Analyze, Process and Consolidate

Steps of Analysis

- Selection of Models
  - Relegation
  - Selection of Models for Comparison
- Comparison
- What is not in NAAC Criteria

Selection of Models: Relegation

- Ground Rule: Ranking is different from Accreditation:
  - Academic Ranking World Universities (ARWU) (Nobel Prize etc.) [M4]
  - Quacquarelli Symonds (QS) Ranking for World Universities [M6]
  - Quacquarelli Symonds (QS) Ranking for Asian Universities [M9]
  - Quacquarelli Symonds (QS) Ranking for Latin American Universities [M10]
  - THES ranking [M13]
  - University of Montréal [M17]
- Quality Awards
  - Ramnath Kesava Raja Award: 70% Management and only 30% Education Related [M3]
  - European Quality Award [M4]
  - Australian Quality Award [M5]
- Others
  - Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) Emphasis
  - Wisconsin’s Model academic Standards: Expected Graduate Qualities [M14]

Selection of Models for Comparison

- Model Number 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
- National Board of Accreditation (NBA) [M1]
- NAAC [M2]
- Accreditation Board of Engineering and Technology (ABET) (US) [M7] Weights are not given
- QS STARS [M11]
- The Institution of Engineers, Singapore Engineering Accreditation Board (SEAB) [M15] Weights are not given
- CRISIL Business School Grading [M16]
- The NAAC is considered as the Frame of Reference
Many Synonymous Expressions

- Customer Engagement = Stakeholder Involvement
- Impact on Society = Student Support, Governance...
- Organizational performance = NAAC and IQAC
- Web Visibility
- Connection with Community
The speaker highlighted the news item of The Times of India (dated 17th Sept., 2010), *“India doesn't figure in world top-100 universities”* and at the same time we have gathered to discuss on the theme “RAABE” which is a mere coincidence. However, it is a good sign that we have assembled here to discuss a theme which is an emergent need for our GOI.

Mr. Morey said that Dr. Vijay V. Bedekar has this vision in mind keeping in mind the educational milieu of our times. He added that students should come to class with an open mind so that new things can be filled in the mind and imbibed. The teacher should spend equivalent student hours to prepare for lectures before going to classes for e.g. if 100 students are attending a class for 2 hours then value addition due to teaching should be equivalent to 200 hours (100*2=200 hours). Only such an attitude coupled with the required effort can justify the salary of Rupees One Lakh per month.

**Discussion:**

☞ **Mr. A. Patil** added that St. Xavier’s College, Mumbai has a huge employment cell. They also bring out many publications.

☞ **Ms. Sukhada Tambe** stressed on the role of attitudes in influencing performance and quoted from Sant Tukaram as follows:
Ms. Srividhya Jaykumar pointed that correction and perfection of basics is the need of the hour. The students, many times, make numerous mistakes in writing simple application letters or in examination answer books which indicate that it is necessary to concentrate on basics. She added that it is very important for teachers to know what students know and also what they do not know so that suitable corrective response action can be initiated.

Exhibit 32: Learnings from Sant Tukaram

A tree bearing lemon cultivated with the manure of sugar will not lend sweetness to the fruits borne. Similarly whatever initiative is taken for training and improving a person with unchaste mind, will not yield positive results. On the contrary it may be rejected rather than received.

Midas touch is of no use to clay or mud. It will not turn into gold, but would continue to retain its original features only. Mutual society between Bamboo and sandalwood will not lend the former Bamboo the pleasurable attributes of the latter.
Dr. Deepak Sable presented the importance of vision and mission of the college. In current times, colleges are not only known by infrastructure but also by their vision and mission statements. Hence, an educational institution must have crystal clear vision and mission statements.

College should give ‘scholars card’ to the deserving scholars so that they can make use of such cards while availing concession in loans, buying books and various other things. Before going for external audit, the internal departments of the college should go for an internal audit between and amongst the departments. This will enhance the communication and quality of the departments.

VPM’s GOI was the pioneer in conducting online admissions. More and more usage of ICT will enhance quality of administrative work and the quantity too. Memorandum of Understanding (MOU) should be signed between different research laboratories to increase knowledge sharing.
Mr. Subhash Shinde added that more focus should be given to writing research articles in peer reviewed journals.

Mr. Narayan Barse added that it is necessary to check whether the journal is abstracted and indexed internationally.

Dr. Guruprasad Murthy said that of late there is mushrooming of peer reviewed journals and care should be taken before assessing the contribution of teachers based on more number of articles published or claims regarding number of publications in peer reviewed journals.
New Delhi, Oct. 3: Madhukar Pai, a doctor and epidemiologist in Canada, first suspected something was wrong when he received invitations to join the editorial boards of journals on climate change, plants, even physics — fields that had nothing to do with his area of expertise.

Then his email inbox was flooded with requests from dozens of scientific journals based in India, urging him to submit research papers to them. One journal pledged that any paper he submitted would be reviewed within 15 days and, if accepted, published for a fee of $260 (Rs 16,050).

India is the world’s largest base for open-access journals that accepted decoy research papers that should have been rejected in any genuine peer review.

“India is where most of this is happening,” Bohannon said.
One publisher said Indian researchers needed to pay Rs 3,200 for an accepted paper, while foreign researchers were charged $60 to $70 (Rs 3,700 to Rs 4,320).

Bohannon’s 65th acceptance from India for his decoy paper came from the People’s Journal of Scientific Research, based in Bhopal. Its chief editor, G.S. Longia, sent him an email informing him that the manuscript had been accepted and that he should send $220 (Rs 13,580) as “handling and printing charges”. The email also mentioned the bank account details.

“This is a scam that keeps many happy,” said Kasturi Lal Chopra, physicist and former director, IIT Kharagpur.

“Journals make money through fees for published papers, researchers get dubious quality papers published in journals with little or no peer review, and then they use such publications to seek promotions”.

Creativity and Innovation in B N Bandodkar Science College

Group III

Prin. Dr. (Mrs) M.K. Pejaver
Prin. Srividya Jayakumar
Narayan S Barse
Anil Dhawale
Mrs. Wankhede
Dr. Deepak Sable

B. N. Bandodkar College of Science
Reaccredited ‘A’ Grade by NAAC
‘Best College Award’ by University of Mumbai

Vision
To impart ‘Quality Education’ in Science

Mission
To mould our students into rational thinkers, competent workers and socially aware citizens.
Scholar’s committee

- Scholars Committee may be constituted to strengthen the scholarship in scholar students.
- Regular guidance through the committee
- Scholar’s card to give them identity and provide extra facilities from library
- Information about various scholarships

Research Committee

- To enhance research in various departments of the college
- Try to obtain more research grants from UGC, CSIR, DST, Mumbai University
- Environment related projects can be undertaken
- Research Project can be sent for participation in ‘Avishkar’ competition
- Collaborative Research

Student’s Forum

- To provide a platform to students for exchange of thoughts on various societal issues and burning topics.
- To develop thinking and expression ability in students and sensitizing socio-economic, cultural, political issues among group of students

Audit

- Academic audit of the college can be done from external experts or agencies
- Inter departmental audit can precede academic audit
- Detailed Profile of each department should be available on our website

IMC Ramkrishna Bajaj National Quality Award

- The IMC Ramkrishna Bajaj National Quality Awards recognize excellence in Indian organizations since 1997. There are six categories to the awards - manufacturing, service, small business, overseas, education and health care.
- The IMC RBNQA Excellence model is based on the Malcolm Baldrige excellence model of US.

Calendar of Events

College calendar is exhaustively prepared as a part of macro planning but Department calendars should be prepared to organize the department programs and club activities

Micro level planning
ICT in Teaching, Learning and Evaluation

• Online Test
• Online Attendance
• Attendance to be accessible on website to parents
• Use of YouTube clips and short films in teaching
• Use of Moodle / related software to enhance the quality of teaching learning process

Research Publications

Research papers from each of the departments to be published in peer reviewed journals

Academic Visits

To visit
• Science Colleges, Research Laboratories, Research Institutes, Libraries
The presentation highlights creativity and innovation in VPM’s Arts and Commerce college. The focus is on forming, storming and norming and performing (Dr. S. Savanur) various students centric activities. Creativity and innovation in education is viewed from several angles viz. teaching learning, research, industry-academic partnership, infrastructure, student involvement and contribution to society. Various dimensions of TLP and research have been presented. Contributions to society include the activities mentioned in Exhibit 34.

Ms. Aditi Deuskar pointed that the activities in VPM’s Commerce & Arts College are student centric viz. ‘Swarasampada’
Dr. (Ms.) K. Muley shared the four student personality traits and behaviors.

The temperaments are:

☞ sanguine (pleasure-seeking and sociable),
☞ choleric (ambitious and leader-like),
☞ melancholic (analytical and thoughtful), and
☞ phlegmatic (relaxed and quiet).

☞ Teachers should be morally correct. They should learn new concepts along with the students for e.g. new concepts like net banking, mobile banking etc.

☞ Students should gather information, process it, convert it into meaningful knowledge with the help of teachers and peers and present the same so that the knowledge sharing process is on and awareness of the student fraternity, and teachers too, increases.

Dr. S. Savanur added that there is a fourth step to the forming- storming-norming viz. ‘performing’.

Ms. J. Pawar added that introspection for all teachers is necessary so that they can look forward to the changes and challenges, adapt and adjust to the same proactively and consistently.

We should go beyond excellence by cracking other criteria apart from NAAC. Teachers should be role models for their students. They need to develop the right attitude and possess the requisite skills which can promote goal directed behaviour. Sigmund Freud's Theory of Iceberg model of personality was put forth where one eighth personality can be judged as if it includes
attitude and skills and remaining seven eighth personality cannot be judged as it is unpredicted behaviour.

Learning is a continuous process and we need to focus on learn, unlearn and relearn. The teachers should be mentally strong to innovate something. Teachers should also focus on reading habit, practicing Yoga and meditation. Students have high intelligent quotient, emotional quotient and spiritual quotient as well.

**Dr. (Ms.) Madhuri Pejaver** mentioned that we need to look for microfilms for aided courses to create social awareness for subjects like micro finance and other upcoming areas. B.Com. students should be given live corporate financial statements for analysis and interpretations. She also suggested that commerce students should take small workshops for science students to create financial literacy among science students.

**Mr. Subhash Shinde** suggested having remedial lectures for slow learners and coaching for competitive examinations.

**Ms. Rashmi Agnihotri** shared her experience of teaching marketing subject in T.Y.B.Com. where students were asked to design a marketing plan for selling product (mobile with fax facility) which was correlated with the teaching concepts having around the four Ps.

**Dr. Guruprasad Murthy** quoted the example of Jamnalal Bajaj Institute of Management Studies, Mumbai and S. P. Jain Institute of Management and Research, Mumbai students where engineering students scored more in finance papers than the commerce students though the engineering students were exposed to the subject for limited hours compared to the three years spent by commerce students in learning accounting while pursuing the B.Com degree.
Creativity and Innovation in VPMs Commerce & Arts College Thane

What is Creativity?

- Creativity refers to the phenomenon whereby something new is created which has some kind of subjective value.
- Imaginative activity fashioned so as to produce outcomes that are both original and of value.

What is Innovation

- Innovation is the application of new solutions that meet new requirements, inarticulated needs, or existing market needs.
- Innovation is to share information on a common platform for common predetermined objective.
- Innovation is a mental process for which basic is to, collect the data, use the data for:
  a. Decision making
  b. Study or analysis

Student Centric

- Field trips
- Generation Dialogue
- Film Society
- Research Committee
- Talent Academy
- Vyaisabha
- Vivekananda study circle
- Counseling cell
- Remedial Coaching Services

CREATIVITY & INNOVATION in EDUCATION

- Contribution to the society
- Student involvement
- Infrastructure
- Faculty & teaching learning
- Promoting Research
- Association with the industry

C R E A T I V I T Y

NORMING

STORMING

FORMING

1

2

3

4

5

6
Faculty and Teaching Learning

- Study the subject with students
- Gathering the information
- Filter the information
- Quality information used for application
- Make a group of students and ask to present
- Record the findings

Promoting Quality Research

- Major Research Projects
- Funding from institutes like TISS
- To promote Quality Research stipend could be provided to students in Masters Programme.

Student Involvement

- PG Students could be roped in for conducting workshops or certificate courses for non Commerce community.
- Workshops for Non Teaching staff related to work productivity etc.
- Mentoring System

Infrastructure

- Optimum use of infrastructure by conducting evening courses for non Commerce community. For E.g. share market trends, income tax etc.
- Utilization of Vacations.
- Commerce related courses for students appearing for C.A./C.S.

Learning is an unending process.
- We should always raise our own bar and continuously connect with network where exchange of ideas occur.
- Every professional should invest 5-10% of ones income for updating one’s professional skills:
  - In terms of your knowledge, skills and behavior.
- Use Of ICT.

Entrepreneurship projects: Formulating a product and trading the same on the lines of costing, profit, accounting & advertising.
- Small Projects regarding market value of product, shares of company, study of balance sheets.
- Remedial lectures & Bridge courses.

Promoting Quality Research

- Major Research Projects
- Funding from institutes like TISS
- To promote Quality Research stipend could be provided to students in Masters Programme.
• Planning with respect to physical fitness, meditation and good reading material which develop cognitive thoughts.
Productivity and quality at workplaces addresses various ways and means of improving productivity and the quality of education. Many tools to enhance the quality of education have been presented in Exhibit 35.

The other factors presented include the keys for effective teaching, fields visits, extra and co-curricular activities, sports with focus on health is wealth, results and the intent to use productive and creative quality efforts to be the **hub of knowledge leading to centre of excellence and beyond.**
Dr. (Ms.) Shobha Doshi said students are like ‘pots’, if it is empty it can be filled up but if it is upside down then no matter what quality teachers deliver, it is in vain. She said that the teachers should assess themselves and find ways and means to achieve individual excellence so that they can motivate students. She discussed about ‘abhimaan versus swabhimaan’ with respect to respect for the teachers in the eyes of student. The students should be made comfortable so that they can openly discuss and talk about their problems. Teachers should always make an attempt to touch interact with the students in a friendly manner. Teaching should be ‘heart to heart’ and not ‘head to head’. Talking about enhancing ethical and moral values, she added an example of Ms. Vijaya, M.A in Yoga who conducts free yoga training sessions for the students to inculcate correct education of Yoga amongst students and teachers. She added that eye contact with every student while teaching is important so that student gets an individual importance and attention in the class. In ‘Navrang’ competition, all employees including teaching, non-teaching and support staff of VPM GOIs get an opportunity to come together and participate. Transformation of students’ of attitudes and aptitudes of inputs must be the aim of teachers.

Dr. (Ms.) Madhuri Pejaver added the VPM Chairman always insist to start and end all programmes on time. Time management is key to success in professional and personal lives.
Productivity:

- A measure of the amount of output per unit of input. Is mainly concerned with the results i.e., output.
- The productivity of a teacher can be measured on the basis of his teaching and other co-curricular activities.
- A teacher can be more productive with use of skills and appropriate techniques.
- The focus is not only towards the productivity of teachers but also about students.

Keys for Effective Teaching

- Subject Knowledge
  - updating the knowledge
  - using appropriate teaching aid (maps, globe and other equipments)
- Remedial Teaching
- To be a role model
- Library
  - Reference books
  - Magazines
  - CD’s

Use of ICT, OHP, LCD, Internet, PPT’s, Movies (Film Society)

- Experiential Learning
  - Tapping students’ innate potentiality
  - Active participation of Students
  - Providing forums to students (Research academy, speakers academy)

Field Visits

- to practically introduce the Physical, Economic, Cultural aspects in the subject like Geography.
- visiting old age home, orphanage etc.
- Interviewing the politicians, doctors, lawyers for discussing the professional ethics etc.

Extra and Co-curricular Activities

1. Enhancing the ethical, moral values
   - Vivekanad Study Center
   - Certificate Yoga course
   - Practical yoga session in the TYBA (Philosophy) class
2. Talent Academy
   - Singing, Dance, Drama, Theatre, Fine arts, Manthan etc.
3. Sports

“Health is Wealth”

• Indoor Games - Chess, Carrom, Table Tennis etc
• Outdoor Games - Running, Fast walking, Discus Throw etc.
• Gymnasium Facility - Well Equipped Gymnasium facility with trained instructor not only for students but for teachers in Staff Room itself.

Results

• Moulding the average students from very ordinary socio-economic background to excellent students.
• Achievements
  - Gold medalists
  - Awards (best college, community college, best teacher etc.)
  - overall development of the students through introducing the Add on courses like Gandhian Philosophy, Conversational English et al.
• Position achieved by Ex-students

Increase Productivity

• Foster team work
• Solve problems
• Improve quality
• Foster better relationships with Employers, Employees and Colleagues
• Reduce stress level (Vyasa Sabha, Swarasampada, Cooking Competition etc.)
Dr. R. Athalye initiated the presentation by saying that training to laboratory and office staff is a must to enhance quality. Records in the laboratory should be readily available without depending on teaching staff. This directly reduces additional burden on teachers. Further, he added that library facilities should be improved at all department levels and request library members to send the access details to teacher's residence.

**Bridge Courses:**

Bridge courses for students helps to bridge the gap between ‘what they are and what they want to be’. If both teachers and students perform their respective duties then things would be different and all tasks become easy. He also added that we need to have single bar and double bar to have ready facility of workouts and pull-ups as and when teachers have time. He suggested that Yoga classes and food should be free of cost for the staff. Notice boards should be managed properly and smaller committees should be formed for such tasks. More delegation and division of labour should be focussed to undertake specific tasks rather than forming large committees. He suggested that we need to have dedicated staff for NAAC data collection which in itself is a lengthy and time consuming process which is a toll on teachers time. A separate examination control department may help.

Management representative should regularly inspect and monitor the
infrastructure facilities in and around the institute to maintain discipline consistently.

Dr. Guruprasad Murthy added that staff selection should be made on the basis of psychometric tests so that perverts, pessimists and persons with various delinquent tendencies are avoided at the entry point itself, during recruitment, as far as possible.
How to improve productivity at place of work in VPM Science College?

- Dr. R P. Athalye
- Dr. A. S. Goswami-Giri
- Mr. Dilip Shanai
- Mrs. S. Doshi
- Mrs. A. Doifode
- Mrs. M Deshpande

“Productivity = Output : inputs in production; it is a measure of the efficiency of production.”

“A Penny saved is a penny earned

- Risk
- Reduction of efforts, energy, IT Cost
- Revenue generation
- Responsiveness
- Recycled resources facility
- Reach out to employee
- Reward, recognize
- R + E = Result (Productivity)

Measures to be taken to improve productivity

1. Laboratory and office staff-
   - Guidance to maintain the data
   - Training programs e.g MS office, Public relation training, Yoga (fitness) training.
   - Infrastructural facility.
2. Library Facility
   - To encourage the use, request to library to provide data accession code to staff.
   - Improve departmental library facility.

“Quality is never an accident; it is always the result of intelligent effort.”

“Don’t tell me the sky’s the limit when there are footprints on the moon.”

“Consider everything an experiment.” — Corita Kent

“Teamwork is essential. It allows you to blame someone else.”

“History of the institution
- Aim, objectives & mission
- Individual capacity
- Group capacity
- Environment and resources

Following are the plans to improve the productivity of VPM Science College.

“Pay attention to -----”

“Quality is never an accident; it is always the result of intelligent effort.”
3. For students
- Bridge Courses
- Strengthening mentor system
- Extra coaching to slow learners and bright students
- Personality development courses
- Value added certificate courses
- Training on morals, manners and etiquettes
- Employment cell

4. For Research
- Encourage project writing for teaching staff
- Workshop s for guidance – project writing, referencing scientific writing
- Encourage students projects

"The difference between ordinary and extraordinary is that little extra."

5. For Staff
- Training Welfare programs, Training programs, Awareness drives, Encourage Interdisciplinary work, Division of labour

"Opportunity is missed by most people because it is dressed in overalls and looks like work."
To improve the quality of the output in any organisation, resources have to be used effectively and efficiently.

Mr. A. Kale pointed out that there is an urgent need to reinforce that we are ‘VPM Thane, GOI’ and not Arts, Commerce or Science College individually. We need to communicate more amongst all the colleges / institutes and collectively decide the external communication points to make the process centres easy for all stakeholders.

The front office activities should be centralized for proper communication with the students seeking admissions. The teachers are spending more time in administrative work rather than teaching and solving student queries.

**Mr. Narayan Barse** shared views on institutional autonomy where the college is affiliated to University but need not follow its syllabus or curriculum. There is autonomy with respect to framing / changing of syllabus. Further, he explained the features of an autonomous institute:
1. Academic independence which gives the institutions freedom to revise the syllabus with time and follow a schedule which is more suitable for the set curriculum.

2. Examinations are conducted by the institute / college itself and are in accordance with the coverage of syllabi.

3. Relative grading system where the highest marks obtained by a student decide the marks the others get. Hence, in case of a difficult paper, a low percentage score would not necessarily mean a low Grade Point Average (GPA).

4. Degrees finally awarded by the affiliated University which generally carries a lot of reputation.

**Dr. Guruprasad Murthy** added few demerits of institutional autonomy:

☞ Institutes fear about losing government aid.

☞ Post autonomy controls are worse than controls prevailing prior to autonomy.

☞ Admissions at institute level become difficult because it takes time to establish the brand image of a new autonomous institute as against the perceived broad value of *University driven* non-autonomous institutions. Nevertheless, autonomy is desirable and is a sure way towards academic decentralization and opportunities for evolving centres of excellence.
Productivity

Main factors to consider are
- Efficiency
- Efficacy

Efficacy is defined as 'that which brings about the desired result'.

Efficiency, in engineering terms, is defined as 'the ratio of a machine’s output power to input power.'

7m Model of productivity

- Material
- Money
- Market
- Management
- MEN
- Machine Productive
- Mindset

Input

On quality of students taking admission we do not have any control.

Outcome:

- Related to knowledge
- Practical and intellectual skills
- Values, generic capabilities
- Behavioral attributes
- Imagination and creativity.

Output: Student as national builder and responsible citizen.
- 100% result
- University toppers
- Placement
- Alumni
- Competitive / professional exam
- Entrepreneurs
- Working with NGO’s
- Social responsibility
- Cultural activities
- Research
Observations

1. Admissions Merit List Schedule
2. Process of Enrollment / Eligibility
3. Affiliation
4. Results
5. Employment Cell

Some deviation
Cultural Activities etc

Measures

1. Meeting of office staff working for identical job of both colleges every 15 days in presence of some authority for updating / sharing of resource / knowledge / method.
2. Any new circular / notices received should be circulated to sister institutions by each.
3. Working style

To improve the quality of the output we have to use resources effectively and efficiently.
Quality Audit is essential to enhance productivity.
Audit is also useful to plan the activities for the next year.
Audit should be based on
1. Departmental Report about
   i) Lectures allotted and taken
   ii) Seminars/Group discussions conducted
   iii) Other student activities as scheduled in per University.
   iv) Remedial lectures/Bridge lectures
   v) Teachers participation in various academic activities
   vi) Teachers participation in research activities.
   vii) Academic/Student.
   viii) Departmental activities.
2. Feedback from the student about
   i) Administrative services
   ii) Teaching, Learning and Assessment
   iii) Library, Laboratories, ICT
   iv) Facilities for extracurricular activities
   v) College environment
   vi) General issues.

Based on the feedback we can calculate Student Satisfaction Index (SSI)
Suggestion given by the students can be discussed and then implemented to improve services.
For Science college, Dr. (Ms.) Madhuri Pejaver agreed to take up the idea of maintaining separate notice board for different departments and form committees / sub-committees to maintain the respective notice boards.

She added that bicycle and treadmill are already ordered for teachers and welcomed the suggestion of hanging bars in the staff room. She further suggested that the staff room discussions must be qualitative.

☞ Mr. Dilip Shenai use the resources to the optimum level and focus on spending quality time at work.
☞ Dr. (Ms.) Shobha Doshi self analyse oneself rather than criticizing others.
☞ Mr. A. Patil library resources should be shared
☞ Mr. Damodar Morey campus diary must be maintained to highlight the achievements, interests and birthdays of employees of VPM GOIs.
☞ Mr. Pramod Kharate enhance research and update subject knowledge.
☞ Mr. D. Ghadi use of more ICT in teaching.
☞ Ms. J. Pawar will undertake more research projects.
☞ Ms. Aditi Deuskar create mass awareness to improve mental health.
☞ Ms. M. Wankhede undertake introspection and may improve performance
☞ Ms. Srividya Jayakumar, orientation programme for new teachers, training for non-teaching staff, identify nonperforming staff and help them to improve and conduct online tests.
Dr. Deepak Sable go beyond Ph.D. research and undertake teacher and student collaborative research projects.

Mr. Subhash Shinde motivate students and prioritise time. Prepare and follow daily checklist of important tasks, conduct meetings of admission committees.

Mr. Narayan Barse give updated knowledge to all colleagues and provide orientation to students on library resources.

Dr. (Ms.) K. Mulye self auditing and developing leadership qualities.

Mr. A. Kale try to create conducive environment.

Ms. M. Gholba motivate students to improve results.

Ms. Smita Bhide like to start statistical and research consultancy in collaboration with Science College and DR VN BRIMS.

Mr. Deepak Murdeshwar will try to achieve 100% results for self financing courses.

Dr. S. Savanur will conduct tests after every three months and evaluation of these papers will be done by other teachers.

Mr. S. Bhosale fulfill all the expectations of the Principal and will write research papers for international journal.

Dr. (Ms.) Madhuri Pejaver summed the discussion forum of a heterogeneous group representing teachers from different age groups and shared the following:

- Highlight the strengths of college and improve the weaknesses.
- Use of resource material to the optimum level.
- Form common forums for library, English teaching, admission circulars and conduct common meetings of these forums regularly.
- She concluded that all of us belong to VPM, Thane and need to communicate as VPM’s GOIs and not as individual institute.
Dr. (Ms.) Madhuri Pejaver has made a pictorial presentation of different creatures on earth and used zoology as the basis to drive home certain lessons. The creatures referred to include Ants, Paper Wasps, Potter Wasp, Duck/Egret, Maina, Peacock, Lapwing, Weaver Bird, Kingfisher, Sun Birds, Coppersmith, Carmorent, Eagle, Seagull, Flamingo, Malbar Hormbill, Bonnet Monkey. The salient features of these referred creatures have been put together to present a holistic inventory of attributes that may help address the day-to-day functioning of educational institutions too. In fact, the message is that human beings should imbibe the good qualities of these creatures which when taken together represents a host of attributes that go a long way in improving performance levels through better attitudes, skills and knowledge. The presentation and the write-up makes interesting reading and provides lateral insights, from a totally different discipline, as to how to proactively respond to the call of RAABE.
When the students come to the larger world of college/ higher education leaving their school the whole path in front of them is barren. There are many courses, many paths to be taken but the students are confused about the same. It is our duty, as teachers to make this path better, greener and worth treading. For this there are many lessons which can be learnt from the animal world.

Ants are the most ancient creatures on the earth. They are surviving through all the catastrophes due to their adoptability nature. They are social, know the fundamentals of team work perfectly and are very creative.
The anthill or ant mount is a good piece of architecture built by good teamwork. The anthill reminds us the story of our childhood the ‘ants and the fiddler grasshopper’. They teach us lessons of hard work and the

LESSONS TO LEARN

- Social
- Team Work
- Adaptive
- Ready to Evolve
- Creative
- Disaster Management

Paper wasps are creatures which teach us about research attitude and aptitude. The paper wasp makes a paper from the wood pulp, makes a nest from it which is hanged from a point of attachment and spreads. On the other hand the potter wasp, makes the nest from the mud, anesthetize insect larva, keeps it in the nest and then lays eggs on the same. The wasp then seals the nest. This way the wasp secures the availability of food to her babies when they hatch out. The wasp is a great geologist as she knows which soil to select, she is a great hydrologist as she knows the water source, she is a great zoologist because she captures a specific variety of larva, she is an anesthetist too as she knows the specific dose of venom to be injected so that the larva is not killed but is only anesthetized. She is a great mother too as she is a perfect example of parental care.

THE RESEARCH ATTITUDE AND APTITUDE

UNITED WE STAND

- Must have Creativity
- Must have perfection
- Must be visionary
- Must know to maintain balance
The students as well as the teachers have to be like a watch dog. There are expectations from various fronts like friends, mentors, guardians, parents and many others.

We also must be focused and disciplined because that takes us to destination, the gargany ducks show us the same.

We have to be patient like a duck/egret which waits on one foot till the fish comes on the surface of water and catches it immediately. Again, we also must be opportunistic like the maina.

The crows are known for their intelligence which we have read in Isapniti from our childhood. In our customs and various religious rites, we give an important position to crows which is known to all.
We must know our strengths and also should be able to display our skills when needed. The peacock when flies, looks beautiful with all the feathers spread and displaying a plumage of colours. Similarly, when needed, we must exhibit our talent.

Small or big all have good talents and specific strengths. We should not be intimidated by size. We need to deploy our talent fruitfully. Lapwing is a small bird which lays the eggs in small pits made on the ground. When any predator comes towards the nest the lapwing makes big noise and runs away from nest attracting the predator towards her. Thus takes the enemy away from the nest and protects the nest.

The weaver bird has good skills of weaving. The male weaves the nest from the grass blades considering the direction of wind, site of tree where the nests are built. The female accepts the nest which is woven skillfully and along with it the male who built the nest. Thus the skills developed by participating in extracurricular activities bring accolades in life.
The kingfisher has a perfect aim. It many a times hovers on the water, then dives and comes out with a fish. Hence the name.

The sunbirds have a long and slender beak to pick up the pollen grains and suck nectar. The way they go from one flower to other to collect the nectar and pollen grains, we also must visit libraries, read news papers, use internet, and must be savy with latest technology to keep ourselves updated.

The grains of knowledge to be picked up like pollen grains

- Need to visit library
- Need to use internet
- Need to be savy with latest technology
The teachers have to be very caring like the Coppersmith who takes care of the young ones as well as the female who is inside the nest.

We also must be very protective like the green pigeon who takes the young ones under the wings in early morning hours.

A little relaxation, a small outing, little window shopping with friends, a coffee with some friend are the moments of relaxations which must be cherished and remembered, like the little carmorent, who spreads the wings in morning hours and relaxes.

The students are waiting for us to get this knowledge. We must try to give them the maximum.

We do need the relaxation sometime.

- Must develop hobbies
- Regular exercise
- Participation in various activities
We must develop our strength so that we can climb the cliffs too, with pauses.

We must climb through and also have a bird’s eye view, just like the eagle.

Along with the strength we must watch our territory. We must know the opportunities and challenges like globalizations, autonomy et al.

As the eagle has the strength to fly above the cliffs and rise high, the seagull has the strength to fly long distance, fly in stormy weather as well as the ability to capture its prey. Thus small or big require the same strength.
Hence take a run start like flamingo, judge the strength like an eagle, adjust the height like the seagull, if required dive sometime like the malbar hornbill, catch the object like gull but let the object not be a dead one as caught by a vulture.
After a little while rest sometime. Think like the bonnet monkey about the achievements, skill acquired, further targets. Judge yourself and then rise above and beyond excellence.

Building a competing spirit like an eagle ensures success. We can develop the capacity to carry the weight much larger than our own weight.
Shri. M. Y. Gokhale said that it’s his pleasure, to share his thoughts with a heterogeneous group representing teachers from different age groups. Some are young, just started, some are experienced, some are towards retirement and some are on the extended period.

Further, Shri. Gokhale said that there is no age bar for seeking education. One may continue education at any age. Then, he shared his personal experience that he completed his LLM at the age of 67.

He then referred to Swami Vivekananda who had stressed on different aspects of religion, education, character building as well as social issues pertaining to India. Swami Vivekananda had said that ‘education is the manifestation of perfection already in man’. He further added that it is a pity that the prevailing system of education neither teaches a person to stand on his own feet, nor does it teach impart self-confidence and self-respect. To Vivekananda, education was not only collection of information, but something more meaningful; he felt education should be man-making, life giving and character-building. To him, education was an assimilation of noble ideas.

He further added, as Dr. Guruprasad Murthy had said, that VPM’s Chairman, Dr. Vijay V. Bedekar is still not satisfied that we are excellent, this is actually the urge to rise above and beyond excellence.

Shri. Gokhale concluded that excellence means in the decade to come, VPM’s GOI should be ranked amongst the best institutions in the world.
She thanked Dr. Guruprasad Murthy for making them learn the management principles and agreed to apply them in day-to-day life. She said CA Dr. Vishnu Kanhere correlated various stories from Mahabharata to today’s context and the relevance of the same. Then she added that the conference was an excellent opportunity to communicate with teachers of other institutions of VPM. She learned how to increase productivity, how to utilise resources and make use of the knowledge gained for the benefit of VPM’s B. N. Bandodkar College of Science. She further said that many foreign Universities would be landing up soon. This conference was able to give them the excellent skills.

- Ms. Jayshree Pawar

She appreciated the seating arrangement for the conference and also the lateral views and thinking, punctuality followed in programme, smart rescheduling for some sessions. Further, she also liked the fact that ideas from juniors, like her, were also welcome. She concluded be saying that excellence - above and beyond is an achievable goal and everyone should follow the same.

- Dr. Kalpita Muley
He said that he is a different person after attending the conference. He added that the conference was a great platform to learn from peers, teachers from sister concerns, Heads of Departments and Principals of different colleges. He agreed that there are some constraints to use the databases from home as the IP address is restricted to the number of users but certainly he will try to overcome it. He further added that the conference was a very good learning experience and a fruitful interaction for him. He said that a researcher in him is awakened because of this conference. He concluded by giving thanks to Dr. Guruprasad Murthy and Dr. (Ms.) Madhuri Pejaver and Mrs. Srividya Jayakumar.

- Mr. Narayan Barse

He said that the conference was a great opportunity to learn from different presentations. He further said that all the presentations were unique. He concluded by saying that the inputs from Drs. Vijay V. Bedekar, Guruprasad Murthy, Vishnu Kanhere and Madhuri Pejaver and Mrs. Srividya were very fruitful.

- Mr. Subhash Shinde

Dr. Guruprasad Murthy concluded the discussion by reiterating what Dr. (Ms.) ShobhaDoshi said ‘heart to heart teaching’ rather than ‘head to head teaching’.
Mr. Deepak Ghaisas said if the Head of an Institute is satisfied then that’s the end. However, with the current operations, dissatisfaction can help ‘Rise Above and Beyond Excellence’.

Mr. Ghaisas shared his personal experience. He said that since last 25 years he has allotted 3-4 hours on every Saturday for teaching. He further said that now the generation has changed. Young kids do not listen to their parents. Quality of students is deteriorating as the supply of management institutes have gone beyond demand. In such an environment, quality plays the role. In US, there are great Universities, their website says they have six Nobel Prize winners, 1400 patents and so on. China strived for directions ten years back, now they have done it. Attribute of a Nobel Prize winner is that ‘I am not satisfied and I want to achieve more’, ‘I want to do something’ ...will help the human beings to achieve more and more beyond excellence. Further, he shared his personal experience that people used to think that Chartered Accountants cannot be a good technologist or a biologist but he proved them wrong.

The thought that ‘I want to stand first and not second’ is called striving for excellence and beyond. He further said that failing is not a crime but not aiming high is a crime. Indians are not aiming high. In a Gandhian country, we got medals in the Olympic for Shooting and Boxing then where is ‘Ahimsa’.
Every student from India is used to a ‘Monologue’, mentality. Unless there are participative sessions, we will not be able to achieve excellence. There is a need to go to the ‘Gurukul’ system.

Then he gave an exercise:

**Question:** Assume that you have a cake and a knife then you cut the cake three times in straight cuts into maximum number of pieces.

**From the participants there were two answers:** six pieces and eight pieces but an answer to the exercise was actually ‘sixteen pieces’. Cut the cake once then the other portion of the cake keep it one above the other then cut it second time then again place the portions on the other and cut the cake for the third time, you will end up having sixteen pieces. An example of cake can be thought when shape of cake can be like a caterpillar and then we can have even thirty two pieces with three cuts.

He further added he can learn more when he interacts with students.

Here, in Thane or in Mumbai, we breathe out of compulsion but go to any hill station like Switzerland you really feel like breathing.

For a teacher, parameter of excellence is when the bell rings, no student should get up.

At MEDC the teachers are asked to take sabbatical leave to go to the industry for getting some industry experience.

Then he quoted the example of a lion and a zebra. It’s sufficient for a lion to run faster than the slowest zebra but when the zebra is running for its survival then that zebra should run faster than the fastest lion.
Mr. Ghaisas concluded with the example of ‘Narsimha Avatar’ of God Vishnu and said that you have to act like ‘Narsimha’ in the difficult situation.

Dr. Guruprasad Murthy thanked Mr. Ghaisas for his value added thoughts and said that implementation of his words of wisdom can happen in day-to-day life. Effort is required.
Second Management Development Conference
for VPM's Group of Institutions (GOI)
Heads of Institutions / Departments

CONGRESS THEME

Rising Above and Beyond Excellence (RAABE) in VPM's GOI

Friday, 4th October, 2013 : 10:00 am to 6:00 pm
Saturday, 5th October, 2013 : 10:00 am to 6:00 pm

Participants’ Presentation
Saturday, 19th October, 2013
Participants’ Presentation : 10:00 am to 12:50 pm
Followed by Valediction Program

VENUE : Dr. V. N. Bedekar Institute of Management Studies (DR VN BRIMS), Bldg. No. 4, Room No. 10 (First Floor)
10:00 am  
Inaugural Address by  
Dr. Vijay V. Bedekar  
Chairman, VPM, Thane

<table>
<thead>
<tr>
<th>Session</th>
<th>Duration</th>
<th>Topic</th>
<th>Resource Person/s</th>
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<tbody>
<tr>
<td>1</td>
<td>10:10 am to 12:15 pm</td>
<td>Academic Excellence: Concepts and Models, Ramkrishna Bajaj Award in Education</td>
<td>Dr. Vishnu Kanhere</td>
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<tr>
<td>2</td>
<td>12:15 pm to 12:30 pm</td>
<td>TEA BREAK</td>
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<tr>
<td>3</td>
<td>12:30 pm to 1:30 pm</td>
<td>Emotions and Stress Management, Soft Skills and Organisational Performance</td>
<td>Ms. Aditi Deuskar</td>
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<tr>
<td>4</td>
<td>2:15 pm to 3:15 pm</td>
<td>Six Sigma and Lean Management</td>
<td>Mr. Shreerang Chitanvis</td>
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<tr>
<td>5</td>
<td>3:15 pm to 5:30 pm</td>
<td>Creativity and Innovation in Education</td>
<td>Dr. P. M. Kelkar, Dr. S. Agarkar, Ms. Kirti Agashe, Dr. Amit Oak</td>
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<td></td>
<td>5:30 pm to 6:00 pm</td>
<td>OPEN FORUM</td>
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<td>Session</td>
<td>Duration</td>
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<td>6</td>
<td>10:00 am to 11:00 am</td>
<td>Role of Library in Rising Above and Beyond Excellence</td>
<td>Mr. Narayan Barse</td>
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<td></td>
<td>11:00 am to 11:30 am</td>
<td>State of the Art Library - Services and Practices</td>
<td>Mr. Sandeep Bhavsar</td>
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<tr>
<td>7</td>
<td>11:00 am to 11:30 am</td>
<td>Teaching - Learning Process</td>
<td>Ms. Sukhada Tambe</td>
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<td>8</td>
<td>11:30 am to 11:45 am</td>
<td>TEA BREAK</td>
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<tr>
<td>9</td>
<td>11:45 am to 12:15 pm</td>
<td>Resource Management in Educational Institutions</td>
<td>Dr. Guruprasad Murthy, Dr. P. M. Kelkar, Dr. Amit Oak, Dr. S. Agarkar</td>
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<td></td>
<td>12:15 pm to 1:15 pm</td>
<td>Learning Resource Development</td>
<td>Mr. T. Mohite Patil</td>
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<td></td>
<td>12:15 pm to 1:15 pm</td>
<td>Research Experiences in Technical Education</td>
<td>Dr. Usha Raghavan</td>
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<td>12:15 pm to 1:15 pm</td>
<td>Industry Institution Interface</td>
<td>Ms. Vaishali Joshi</td>
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<td></td>
<td>12:15 pm to 1:15 pm</td>
<td>Social Sensitivity and Technical Education</td>
<td>Ms. Nisha Vader</td>
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<tr>
<td>10</td>
<td>1:15 pm to 2:00 pm</td>
<td>LUNCH</td>
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</tr>
<tr>
<td>11</td>
<td>2:00 pm to 3:00 pm</td>
<td>Decision Making in Educational Institutions</td>
<td>Dr. Guruprasad Murthy, Dr. P. M. Kelkar, Dr. Amit Oak, Dr. S. Agarkar</td>
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<tr>
<td>12</td>
<td>3:00 pm to 3:15 pm</td>
<td>TEA BREAK</td>
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<tr>
<td>13</td>
<td>3:15 pm to 4:30 pm</td>
<td>Strategic Management</td>
<td>Dr. Guruprasad Murthy, Dr. P. M. Kelkar, Dr. Amit Oak, Dr. S. Agarkar</td>
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<tr>
<td>14</td>
<td>4:30 pm</td>
<td>Education System doesn’t give Value for Money (Survey conducted – The Times of India – 17th Sept., 2013)</td>
<td>Mr. Avkash Jadhav</td>
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<tr>
<td>Group</td>
<td>Duration</td>
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<td>1</td>
<td>10:00 am to 10:30 am</td>
<td>Assignment 1: How to make VPM’s Dr. V. N. Bedekar Institute of Management Studies (DR VN BRIMS) a world class management institute?</td>
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<td></td>
<td>10:30 am to 10:40 am</td>
<td>Discussion</td>
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<td>2</td>
<td>10:40 am to 11:10 am</td>
<td>Assignment 2: How to make VPM’s B. N. Bandodkar College of Science a world class institution of science?</td>
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<td>11:10 am to 11:20 am</td>
<td>Discussion</td>
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<td>11:20 am to 11:30 am</td>
<td>BREAK</td>
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<td>3</td>
<td>11:30 am to 12:00 noon</td>
<td>Assignment 3: How to make VPM’s Polytechnic a world class institution?</td>
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<td></td>
<td>12:00 noon to 12:10 pm</td>
<td>Discussion</td>
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<tr>
<td>4</td>
<td>12:10 pm to 12:40 pm</td>
<td>Assignment 4: How to maximize productivity in VPM’s Polytechnic and VPM’s B. N. Bandodkar College of Science?</td>
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<td></td>
<td>12:40 pm to 12:50 pm</td>
<td>Discussion</td>
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<td>5</td>
<td>12:50 pm to 1:30 pm</td>
<td>From here to where??? – A Presentation by Dr. (Ms.) Madhuri Pejaver</td>
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<td></td>
<td>1:30 pm to 2:15 pm</td>
<td>LUNCH</td>
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Second Management Development Conference for VPM's GOI

Heads of Institutions / Departments

Rising Above and Beyond Excellence in

VPM's Group of Institutions (GOI)

Schedule - Saturday, 19th October, 2013

<table>
<thead>
<tr>
<th>Morning Session</th>
<th>Participants' Presentation - Dr. VN Brims, Room No. 10 (First Floor)</th>
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<tr>
<td>Afternoon Session</td>
<td>Valedictory Address – Dr. P. Lavakare</td>
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<tr>
<td>Venue</td>
<td>Panini Auditorium&lt;br&gt;Dr. VN Brims (Ground Floor)</td>
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</tbody>
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<tr>
<th>Duration</th>
<th>Topic</th>
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<tbody>
<tr>
<td>2:15 pm to 2:20 pm</td>
<td>Introductory Remarks by Dr. Guruprasad Murthy&lt;br&gt;Director-General, DR VN BRIMS</td>
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<tr>
<td>2:20 pm to 2:30 pm</td>
<td>Speech by Dr. Vijay V. Bedekar&lt;br&gt;Chairman, VPM, Thane</td>
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<tr>
<td>2:30 pm to 2:45 pm</td>
<td>Distribution of Certificates</td>
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<tr>
<td>2:45 pm to 2:50 pm</td>
<td>Introduction of Dr. P. Lavakare by&lt;br&gt;Dr. S. Agarkar, Professor, DR VN BRIMS</td>
</tr>
<tr>
<td>2:50 pm to 3:50 pm</td>
<td>Developing Global Citizens with Indian Ethos&lt;br&gt;A Presentation by Dr. P. Lavakare</td>
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<tr>
<td>3:50 pm</td>
<td>Vote of Thanks</td>
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</table>
From the Chairman’s Desk

It is with profound pride and pleasure that I welcome all participants – Heads of Departments / Teachers of B. N. Bandodkar College of Science, Polytechnic and DR VN BRIMS to this management conference on RAABE in VPM’s GOI. Over the years, VPM, Thane GOI have established a reputation in their own right and moved steadily from strength to strength. Excellence is no longer an ideal destination – on the contrary it has become the modicum level of accomplishment to survive in the field of education. Hence, the theme of the conference. We are not interested in mere survival. We are interested in being an important constituent and contributor to the process of change taking place in the world due to liberalisation, privatisation and globalisation. In addition, Information and Communication Technology (ICT) is playing its own role and has facilitated not only the dawn but the progress of a knowledge society. Given the prowess of ICT and the emergence of a knowledge society, educational institutions have an important role to play in all round societal transformation. VPM, Thane GOI will have to ride at the crest of the wave of the knowledge society. Moreover, education and economic development are inextricably interlinked and VPM, Thane GOI which are posit as learning organisations will have to forge and contribute their mite, through their vision, mission and goals, to the process of rapid economic development and the concomitant societal transformation. I would like this to happen with greater gusto and gumption than ever before and hence, we need to go ahead to unravel unexplored paths and horizons uncharted, above and beyond excellence. All our Institutions are not only jewels in the crown of VPM, Thane but are undoubtedly, the cynosure of all eyes in society at large. In the circumstances, rather than basking in the
glories of the past I want VPM, Thane GOI to take a lead in transcending above and beyond the levels of historic attainments which undoubtedly, I repeat, are excellent.

Towards, this end we have been exploring the possibility of holding a conference of Principals and Heads of Departments from different VPM’s GOI to assess and ascertain the nature and extent of change that can be brought about in the present mode of operation, given the existing regulatory framework, to deliver increasingly value added inputs to all stakeholders and thus continue to establish an indelible, immutable as well as inimitable mark on the society. We would then have really transcended beyond the realms and contours of excellence. This is the main purpose of the conference of 4th and 5th October, 2013 which will discuss, deliberate and debate various facets of higher education viz. academic excellence models, creativity and innovation, teaching learning processes, decision making, resource utilisation and productivity and quality issues along with the role of adjunct but important inputs of the library and ICT. There will also be inputs on Strategic Management which will guide us as to how to convert our invaluable resources – time, money, effort into tangible, verifiable, globally acceptable value adding results. Thus, the conference would like to generate ideas, capture them, convert implicit thoughts and knowledge into explicit ones that can be actioned for implementation by our teachers to lead our institutions to the new vistas by doing the same work which they did previously in a different manner and venture to add value to all stakeholders. In addition, I expect that in future we will be able to offer value added high ended courses which can raise the intellectual equilibrium of VPM, Thane GOI and also all other stakeholders. I strongly commend this conference for all of you and request each one of you to take full advantage of this opportunity for stimulating your intellectual process and explore your own resources, initiative and capabilities when you go back to your respective work places
fully charged and loaded with new ideas to be triggered into action to raise your respective institutions, in all spheres of activities, to new levels of invincible attainment. For VPM, Thane GOI, the past was great, no doubt, but I want the future to be glorious still and our teachers and students will be a playing a leading role in this seamless journey beyond excellence. It is said in a report of the Government of India:

“Twenty first century will be the century of knowledge. Only those nations will survive and succeed, which will build themselves by understanding the dynamics of knowledge and create true knowledge societies”. I want the VPM, Thane GOI not only to survive but to succeed in the mission of building a great future for posterity.

I wish you Good Luck!!! and also congratulate the Principals of VPM’s B. N. Bandodkar College of Science, VPM’s Polytechnic and Director of VPM’s DR VN BRIMS for taking the initiative in launching this course which will help the respective institutions to take the big leap forward with success.

Dr. Vijay V. Bedekar
Chairman
VPM, Thane

Date: 16th September, 2013
## LIST OF PARTICIPANTS

### VPM’s B. N. Bandodkar College of Science
- Dr. M. Kolet, Associate Professor, Department of Botany
- Dr. V. Manjramkar, Associate Professor, Department of Zoology
- Mr. D. Ambavadekar, Associate Professor, Department of Chemistry
- Mr. S. Rathod, Associate Professor, Department of Zoology
- Dr. K. Paria, Assistant Professor, Department of Zoology
- Mr. Ajit Bhumkar, Assistant Professor, Department of Chemistry
- Dr. P. Kurve, Lecturer, Department of Zoology
- Ms. K. Kardekar, Librarian

### VPM’s Polytechnic
- Dr. Usha Raghavan, Head of Department of Information Technology
- Ms. Kirti Agashe, Head of Department of Industrial Electronics
- Ms. Nisha Vader, Head of Department of Electrical Power System
- Ms. Vaishali Joshi, Head of Department of Instrumentation
- Mr. T. Mohite Patil, Head of Department of Medical Electronics
- Ms. Suhasini Shukla, Head of Department of Computer Engineering
- Mr. V. Walawalkar, First Year In-charge, Humanities and Applied Science
- Ms. S. Gupte, Controller of Exam, Department of Humanities and Applied Science

### VPM’s Dr. V. N. Bedekar Institute of Management Studies (DR VN BRIMS)
- Ms. Smita Jape, Assistant Professor
- Dr. Sna Farooqi, Assistant Professor
## GROUPS

| Assignment 1 - How to make VPM’s Dr. V. N. Bedekar Institute of Management Studies (DR VN BRIMS) a world class management institute? |
|---|---|---|
| Mr. A. Kale | Ms. S. Gupte | NIL |
| Ms. K. Kardekar | Ms. Vaishali Joshi | --- |
| Mr. S. Bapat | --- | --- |

| Assignment 2 - How to make VPM’s B. N. Bandodkar College of Science a world class institution of science? |
|---|---|---|
| Mr. D. Ambavadekar | Ms. Nisha Vader | NIL |
| Mr. S. Rathod | Ms. Suhasini Shukla | --- |
| Dr. M. Kolet | --- | --- |

| Assignment 3 - How to make VPM’s Polytechnic a world class institution? |
|---|---|---|
| Mr. Ajit Bhumkar | Ms. Kirti Agashe | Ms. Smita Jape |
| Dr. V. Manjamkar | Mr. T. Mohite Patil | --- |

| Assignment 4 - How to maximize productivity in VPM’s Polytechnic and VPM’s B. N. Bandodkar College of Science? |
|---|---|---|
| Dr. K. Paria | Dr. Usha Raghavan | --- |
| Dr. P. Kurve | Mr. V. Walawalkar | Dr. Sna Farooqi |
Dr. Vijay V. Bedekar welcomed all the participants for the second management development conference. He said, “A teacher has to share, analyse and assess their role. Both our institutions, namely, the VPM’s B. N. Bandodkar College of Science and VPM’s Polytechnic are excellent institutions. However, these achievements should not be an excuse or an obstacle to reach higher goals. There should be continuous efforts to rise above and beyond excellence. The idea of the conference is to instill in you, the thought that you should continuously raise the bar beyond excellence to reach new heights of excellence.

A famous trapeze artist was instructing his students on how to complete a performance on the high bar. After finishing his talk, he asked his students to demonstrate what they had learned. One of his students stood looking up at his precarious perch, pictured himself falling, and become completely frozen in fear.

“I can’t do it. I can’t do it”, he gasped. The instructor put his hand on his shoulder and said these words:

“Throw your heart over the bar and your body will follow.”

SOURCE: http://rise365.com/throw-your-heart-over-the-bar-and-your-body-will-follow/
Globalisation is changing the landscape of education scenario very fast and this needs to be reckoned with in shaping our approach to managing our educational institutions. There have been many changes in the field of education. India contributes to nearly one fifth of the World's working population. Yet, our share in major contributions to different walks of life is not commensurate with the size of the population. Thus, where do we stand with respect to excellence and creativity? The number of scientific papers published by India was more in the year 1980 as compared to 1990.

Today, performance even in the field of education is measured (quantified) scientifically based on globally known and understood benchmarks.

A teacher is measured by the numbers of research papers published in recognized peer reviewed journals. Teachers should set a benchmark for

Comparing our faith to a track and field high jump:

“Throw your heart over the bar and your body will follow. 
Throw your faith over your difficulty. 
Throw your affirmation over every barrier. 
Throw your visualization over your obstacles. 
Throw the spiritual essence of you over the bar and your material self will follow in the victory groove thus pioneered by your faith-inspired mind”

(The Power of Positive Thinking)

SOURCE: http://happytalkquotes.wordpress.com/2008/04/19/throw-your-heart-over-the-bar-vincent-peale/
rising above and beyond excellence. If we compare ourselves with China it’s a contrast rather than comparison in favour of China, with China way ahead of India. The question which comes to my mind is why are we lagging behind? Again, India has very few noble laureates one only one compared to 247 in the US. We need to take stock of the same and tread new paths to rectify the situation in the medium and long term. We have literally rusted and have been in a state of ‘mental stupor’. We need to awake and arise to respond positively to the requirements of modern, global measures of performance used to rate entities in education. Students do not need great personalities as such to be their ideal or role models. They need teachers who can deliver and who help and guide them at every stage. Such teachers are respected and even revered and are role models for the students.

I understand the limitation of infrastructure. However, VPM (Thane) is making every effort to improve the same. Nevertheless, the hard fact of education funding is that most of the expenditure in education by the Government of India goes towards the meeting of the establishment (salaries) budget. The efforts of teachers should move in the right direction and at a speed that can sustain current excellence and also transcend beyond. Efforts should be not just to teach but to make things happen. There is a lot teachers can learn from this conference and I wish all of you all the best in the conference.”
Discussion:

☞ Dr. Usha Raghavan teaching should not only restrict students to score marks in the examination but to learn for life.

☞ Dr. (Ms.) Shakuntala Singh conferences can be held to educate students. A few programs / courses can be introduced for students enrichment.

☞ Dr. K. Paria to search for bright students and create a ‘Talent Search’ group and working on them.

☞ Dr. Vijay V. Bedekar mindsets of teachers should change first rather than students. Many useful databases are available in the campus. However, not even 5% of teachers are using the same.

☞ Dr. P. M. Kelkar teachers should introspect. Know the gap in knowledge, publish patents, find out competencies.

Dr. Guruprasad Murthy’s Response:

☞ Today students are very well informed on current events as well as the inputs relating to the subject matter of the syllabi.

☞ Teachers need to be equally informed in order to respond proactively to the challenging questions posed by students.

☞ Teachers should posit as facilitators and friends rather than as preachers of gospel truth.
Dr. Vishnu Kanhere’s slides are already shown from pp. 54 to 62. The discussion which took place, in the course of the presentation and afterwards, is presented below:

**Discussion:**

- **Dr. Sna Farooqi** stop mere information gathering. Make more efforts to convert information to knowledge.

- **Dr. Usha Raghavan / Mr. S. Rathod** updating oneself is very important due to the threat of obsolescence.

- **Ms. Sukhada Tambe** the greatest threat to learners is being a victim of their successes. Pride is the greatest enemy of learners. Humility should be a necessary attribute.

- **Dr. M. Kolet** unethical practices should be avoided.

- **Ms. Kirti Agashe** by identifying strengths and weaknesses we should consolidate strengths and overcome weakness.

- **Dr. Guruprasad Murthy** in order that students accept teachers as an authority to be respected, obeyed or looked upon as a role model they must indeed befit that role by commanding rather than demanding leadership. To start with, they must be an authority on the subject they teach and more over they should posit as facilitators rather than teacher or instructors.

- **Dr. Vishnu Kanhere** what should we do to attain excellence?

- **Ms. Vaishali Joshi** need to motivate.
Dr. Vishnu Kanhere why students are not motivated?
Dr. Usha Raghavan dilution
Dr. Sna Farooqi create a need?
Dr. Vishnu Kanhere how to create a need?
Dr. Vishnu Kanhere what are learning resources?
Mr. T. Mohite Patil chalkboard, presentations.
Dr. Usha Raghavan videos.
Ms. Kirti Agashe actual demonstration.
Evoking some participation from the audience.
Ms. Kirti Agashe VPM’s Polytechnic follows the standarised material given by MSBTE.
Dr. Vishnu Kanhere students can be given some quiz. ( Mentioned about quick think, think peer share).
Teachers should be like magnets.
Think of knowledge digested.

Certain Views:
Dr. (Ms.) Shakuntala Singh 60% of research done while pursuing Ph.D. is not used.
Dr. P. M. Kelkar 30% of new products and ideas are part of research.
Dr. Vishnu Kanhere: Research does not go waste.
NOTE: In addition to the slides presented on pp 54 to 62, Dr. Vishnu Kanhere presented the following slides in the second conference of October, 2013.

**NAAC Model - Core Values**

- 1. Contributing to National Development
- 2. Fostering Global Competencies
- 3. Inculcating a Value System
- 4. Promoting the use of Technology
- 5. Quest for Excellence

**NAAC - Criteria**

- Curricular aspects
- Teaching - Learning & Evaluations
- Research, Consultancy & Extension
- Infrastructure & Learning Resources
- Student support & progression
- Governance, leadership & management
- Innovations and best practices

**IMC RBNQA**

- Purpose/objectives
- Org. performance, practices, capabilities & results
- Facilitate communication & sharing best practices
- Tool for understanding & managing performance
- Guiding organizational planning & opportunities for learning

**IMC RBNQA**

- Purpose/objectives (contd)
- Delivery of ever improving value to students & stakeholders
- Contributing to organizational sustainability
- Improvement of overall org. effectiveness & capabilities
- Organizational & personal learning
Core Values & Concepts

- Visionary Leadership
  - Set direction, show the path, role models
- Customer driven excellence
  - Acquisition, satisfaction, performance, loyalty, retention, referrals, engagement (ambassador)
- Organizational & Personal Learning
  - External inputs, R&D, best practice sharing, benchmarking, lateral thinking & application

Core Values & Concepts

- Valuing Workforce Members & Partners
  - Workforce engagement
- Agility
  - Capacity for rapid change and flexibility
- Focus on the Future
  - Anticipating needs, responsibilities & concerns

Core Values & Concepts

- Managing for Innovation
  - Meaningful change, rapid dissemination of knowledge & capitalizing on it
- Management by Fact
  - Measurement & Analysis of Performance
- Societal Responsibility
  - Societal well being and support

Core Values & Concepts

- Focus on Results
  - Good performance levels, beneficial trends, relevant comparisons & benchmarks, benchmark leadership, projections for key areas
- Creating Value
  - Levels, trends, comparisons & integration
- Systems Perspective
  - Approach, deployment, learning & integration

Framework

- Leadership
- Strategic planning
- Student focus
- Measurement analysis & knowledge management
- Workforce focus
- Operations focus
- Results
- In the context of Organizational Profile
Prior to the second conference of October, 2013 interaction with the delegates indicated certain specific needs. While soft skills and organisational performance was already on the anvil, the delegates wanted an exposure to ways and means of managing stress and emotions at the work place. Hence, a professional counselor was assigned this task of addressing two aspects viz. role of soft skills in sustaining organisational performance and managing emotions and stress at the work place. The presentation identifies the meaning of the expression ‘soft skills’ which include motivation and other personal attributes. The presentation then addresses the emotional intelligence which is defined as “the ability to monitor the feelings of self and others along with the ability to discriminate between emotions and use the outcome of these abilities to guide, thinking and actions”. Stress in general and particularly stress at the work place has been addressed, various stress indicators were presented and the role of perception as a stress indicator was highlighted. The presentation concludes
by enumerating various ways of reducing stress as shown in the above

*Exhibit 36:*

Presentation was initiated by sharing experiences of the first conference of June, 2013 and this presentation was based on the interaction, pre and post discussions of the first conference.

**Slide on P = a(ASK):**

☞ Ms. Sukhada Tambe explained \( P = \text{Will} \times \text{Skill} = a \times c = \text{competence} \)

☞ Behaviour has great effect on employer.

☞ Ms. Sukhada Tambe what is important in the above equation?

☞ Dr. Usha Raghavan aptitude can be developed. Attitude is important.

**Slide on Training and Development:**

☞ What is training and development?

☞ Dr. Sna Farooqi training is a process of knowledge development and skill and is the best way to learn a job.
There is a contrarian view which states that performance is enhanced due to pressure. Paul Sullivan in the book ‘Clutch’ has explained how and why some people crumble under intense professional pressure while others rise above the stress to exceed expectations. In life, at times, such situations are encountered where stakes are high and the eventual output is crucial. Top performers at times succumb to pressure at times of extreme stress. However, there are performers who thrive under such conditions. In the opinion of Paul Sullivan, this is the clutch performance which does not stem from an innate ability. It is a learned skill which anyone can develop. Paul Sullivan based on his research and interviews builds his case through many inspiring true stories, e.g.

☞ A skinny sergeant who saved his battalion in Iraq;
☞ A rookie baseball player who pitched his team into its first World Series;
☞ An eccentric psychiatrist who trained a group of financial traders to become the best in the world; and
☞ A lawyer who struggled in school but became one of the top litigators in America.

This could be studied deeply so as to develop this attitude and learn how to excel in extreme pressure.
Discussion:

Slide on Motivation:

☞ Ms. Aditi Deuskar define Motivation?
☞ Dr. Usha Raghavan a stimulant that makes a permanent change.
☞ Ms. Kirti Agashe verbal and non-verbal.
☞ Mr. S. Rathod inspiration.
☞ Dr. M. Kolet beyond its own potential.
☞ Dr. Vishnu Kanhere undyupta???
☞ Ms. S. Gupte encouragement.
☞ Dr. Sna Farooqi Websters dictionary – motive, motivate and motivation.
☞ Dr. V. Manjramkar response.
☞ Action towards a desired goal.

Slide on Soft Skills:

☞ Ms. Aditi Deuskar what are soft skills?
☞ Mr. V. Walawalkar generated by experience.
☞ Dr. Usha Raghavan communication.
☞ Mr. T. Mohite Patil inter-personal.
☞ Ms. Kirti Agashe improve inter-personal relationship.
☞ Ms. Kirti Agashe how will soft skills help the Head of Departments?
☞ Ms. Sukhada Tambe customer feedback, 360° feedback, interaction with peers, standard scales.

Slide on Emotional Intelligence (EQ):

☞ Ms. Aditi Deuskar what is EQ?
☞ Dr. Usha Raghavan able to empathise.
☞ Mr. T. Mohite Patil understand others.
Ms. Suhasini Shukla motivate others.
Mr. S. Bapat stable.
Ms. Kirti Agashe stable under any circumstances.
Ms. Aditi Deuskar happiness, feel good.
Dr. Guruprasad Murthy in Finance, actual consumption / desired consumption.
Dr. V. Manjramkar feelings, anger, excitement, comparative emotions.
Friction produces energy. Some degree of stress is required. Eg: shooters, sportsperson.

Ms. Sukhada Tambe teachers need to understand the mindsets of students in order to solve their problems.
Dr. V. Manjramkar we need to understand students mindsets. However it is difficult for teachers to do so due to generation gap.
**Second Management Development Conference – Rising Above and Beyond Excellence in VPM’s Group of Institutions**
4th, 5th and 19th October, 2013

- Soft Skills and Organizational Performance
- Emotions and Stress Management

---

**Previous conference**

- Rising above and beyond excellence.
- Heads of departments and personnel leading various activities were part of it.
- We were enthused by the views that were exchanged and by what we gained.

---

**The outcome is:**

1. The article
2. The presentation
3. Potential Research Paper

This is an outcome of:

1. The conference
2. Interaction during the conference
3. Post conference interaction (3 months)

---

“**Sprint against yourself, Endeavour to out perform, Raise the bar time after time**”
Aditya V. Birla

---

**P=a(ASK)**

P=Performance

a = Attitude
A = Aptitude
S= Skills
K= Knowledge

---

**The Proposed Model**

<table>
<thead>
<tr>
<th>Input</th>
<th>aASK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resources</td>
<td>Leadership</td>
</tr>
<tr>
<td></td>
<td>Motivation</td>
</tr>
<tr>
<td></td>
<td>Token Economy</td>
</tr>
<tr>
<td></td>
<td>Training and Development</td>
</tr>
<tr>
<td></td>
<td>Organizational Structure</td>
</tr>
<tr>
<td></td>
<td>Work Environment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Results / Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher &amp; Higher Productivity</td>
</tr>
<tr>
<td>Higher &amp; Higher Performance</td>
</tr>
</tbody>
</table>

---

*Competing through Talent: Research Monograph, DR VN BRIMS Publication, 2012*
What are soft skills???

- Personal attributes
  - Enhance:
    1. individual's interactions
    2. job performance
    3. career prospects

Motivation

- Research study published in Canadian centre for science and education.
  - The study investigates relationship between staff motivation and their teaching performance.
  - The study was conducted with academic staff members of Ibrahim Badamasi Babangida University, Lapai (IBBUL), Nigeria.
  - The results reveal a moderate positive correlation between motivation and teaching performance.

Training and Development

- Research paper published in European Journal of Business and Management.
  - Indicates positive correlation between effective training programme and employee performance.
  - Heads could identify the elements that hinder the effectiveness of training and take measures to neutralize them.
Soft skills may be difficult to be captured in a definition. But they include skills such as:
1. Ethics
2. Attitudes
3. Interpersonal abilities
4. Communication
5. Lifelong learning

Many researchers talk of sixty types of soft skills.

Studies reveal that majority skills that are required for entry-level jobs are these types of social and interpersonal skills.

In one study, more than 85 percent of employers’ ranked soft skills among their most important hiring criteria.

Having soft skills is broadly linked to having emotional intelligence.

What is Emotional Intelligence?

It is the ABILITY TO
1. Monitor feelings – OUR OWN & OTHERS
2. Discriminate between different EMOTIONS
3. Use both to guide our thinking and actions.

A study of 130 executives found that how well people handled their own emotions had a positive correlation with how much other people preferred to deal/ work with them (Walter V. Clarke Associates, 1997).

515 senior executives analyzed by Egon Zehnder International. Those executives who were high in EI featured in 74% of the successes and only 24% in the failures.

Executives from Latin America, Germany and Japan were analyzed & results were almost identical in all three cultures (as cited by Cherniss, 1999).
Research has shown that emotional competencies account for up to two-thirds of the distinctive characteristics of top performers (Mines et al., 2004).

The most effective decisions are made when both emotional and intellectual aspects of the brain are engaged (Brushfield, 2012).

**Much better**

- Quantity of work as per rules: no of lectures / paper setting-correction / paper publications / research.
- Quality of work - as perceived by peers, superiors, customers i.e. the students.
- Timely delivery of work.
- Least time, money and effort.

**This would mean moving to**

Quality and Quantity of Global standards with local ethos i.e. Rise Above and Beyond Excellence

**Emotional Intelligence**

is required for:

- Effective social interaction with people.
- High EI leads to better interpersonal relations, healthy working environment and enhanced job performance.
- Teams with high EI are more effective.
- We too need them for...

**Emotions**

- Name & Define
  - _______
  - _______
  - _______
  - _______
An emotion is a complex psychological state that involves three distinct components:
✓ Subjective experience.
✓ Physiological response.
✓ Behavioral or expressive response.

(Hockenbury & Hockenbury, 2007)

Shari Caudron-speaker and Coach says
“Like it or not, emotions are an intrinsic part of our biological makeup and every morning they march into the office with us and influence our behavior.”

Paul Eckman-Basic Emotions-
1972

✓ Fear
✓ Disgust
✓ Anger
✓ Surprise
✓ Happiness
✓ Sadness

Emotions at work

Paper that was presented highlighted
• More than a half of emotions are felt not so much because of the work itself but because of the social relationships holding at work.
• Also because of how a person feels about oneself due to both work and social relationships.
• EI helps in navigating through emotions

A complex emotional phenomenon we experience is _____________.

Stress is an response to a situation that is perceived as an adaptive challenging or threatening to the person’s well-being.
• Stress produces physiological changes to prepare us for “fight/flight/freeze”
Most of the times stress is perceived as negative experience. This is known as *distress*—the degree of physiological, psychological and behavioral disequilibrium leads to deviation from healthy functioning.

Though some level of stress—called *eustress*—is also a necessary part of life because it activates and motivates people to achieve goals, change their environments and succeed in life’s challenge.

---

**How do you know you are stressed?**

- Sleep difficulties
- Loss of appetite/ Binge eating
- Performance
- Bouts of anger
- Anti social behavior
- Emotional outbursts
- Nervousness
- Uncharacteristic errors

---

**Perception as a Stress indicator**
How do you deal with stress?

<table>
<thead>
<tr>
<th>Your Job Stressor</th>
<th>Your Feelings</th>
<th>Your Thoughts</th>
<th>Your Behavior</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
Mr. Shreerang Chitanvis highlighted various aspects of process excellence and used the logistics governing the mode of operations of the Dabbawallas of Mumbai. These Dabbawallas have gone into the Guinness World of Records and therefore the indigenous ‘mode of operation’ has become a role model for studying the grammar of logistics, in fact, the grammar of management. Six sigma was another management tool which was discussed. The role of six sigma is to ‘reduce process variability with a view to eliminate defects within a process’. The concepts and practice concerning six sigma was discussed. The last phase of the presentation addressed lean thinking, elimination of waste and distinguishing between value added and non-value added steps. The summary slide presented by Mr. Chitanvis is shown below:

**In Summary**

- **What is 6 Sigma?**
  - The relentless pursuit of the reduction of process variation in order to achieve continuous and breakthrough improvements.
  - Why is industry following this?
  - To improve competitiveness (design, quality, costs, customer satisfaction)
  - To standardize how to improve
  - Because the market place gives us no choice

- **What is the approach?**
  - Six Sigma and Lean methodologies

**Exhibit 38: In Summary**
The most dabbawala tiffin crates carried on the head are three and were achieved by Prakash Baly Bachche. This feat by an Indian has gone into the Guinness World Records (Ab India Todega) in Mumbai, India, on 21 March 2011, Current Record Details:

“The dabbawala deliver lunch to offices on long trays which they balance on their head. They are known for their efficiency and for being always on time. The dabbawalas give also lectures in top business schools on supply chain management, because they are using a unique system for their deliveries.”

**Source**: http://www.guinnessworldrecords.com/records-9000/most-dabbawala-tiffin-crates-carried-on-the-head/

**Exhibit 39: Dabbawalas of Mumbai – Guinness Record**

- All about Dabawallas, success, how they work, why are they famous?
- **Mr. Shreerang Chitanvis** how do they achieve it?
- **Mr. T. Mohite Patil** no qualification required.
- **Dr. Guruprasad Murthy** education and excellence do not always go together.
- **Dr. Sna Farooqi** less capital investment.
- Excellence is generic. Can be applied to anything.

**Slide on Would you accept...?**:

- **Mr. S. Bapat** stakes are high.
- **Dr. Usha Raghavan** helpless.
- Success rates need to be very very high.

**Slide on How to make that happen?**:

- **Dr. Sna Farooqi** innovative products, knowing environment.
- Generate good results.
Dr. K. Paria value added courses.
Ms. Sukhada Tambe enhance employability of students.
Sincere efforts.
Dr. Usha Raghavan training and development.
Industry response.
Skill development program.
Feedback.
Mr. S. Rathod teaching quality.
Knowledge is the global standard.

Slide on Who Decides Who Is The Best?:
Dr. S. Farooqi innovative products, knowing environment
Dr. S. Agarkar customer satisfaction is not always the top criteria in education. In Industry it may be. Hard decisions have to be taken. Pleasing students is not the way to be the best organisation. Thus, teaching is going to be a challenge.
Customers are classified as external and internal.

Slide on Core Business Process Map:
A process is a series of action to get output.
Education is a process.
Curriculum Development – Polytechnic and Science College.

Slide on 3 customers needs:
Must have.
More is better.
Delighter.
Need to minimise errors.
Everyone has a role to play.
Slide on Six Sigma:
- Six Sigma is set of rules for problem solving.

Slide on Focus on Reducing Variation:
- Ms. Vaishali Joshi it is predictable errors.
An Introduction to Process Excellence

Shreerang Chitanvis

Do You Know Who Has These?

• Achievements
  • World record in best time management.
  • Name in “GUINESS BOOK of World Records”.
  • Registered with Ripley’s “believe it or not”.

Who is the role model for delivering on time every time for more than half a century?

The Humble Dabbawala!

• Error Rate: 1 in 1.6 crore transactions!!

• Why?
  • Imagine a vegetarian getting a non-vegetarian dabba or
  • A personal note sent by the spouse through the dabba unwittingly reaching the neighbour!!
Some Numbers

- Performance - 99.999999% accurate
- Technological Backup : Nil.
- Cost of service - Rs. 200/month
- Standard price for all (Weight, Distance, Space)
- Rs. 50 Cr. Turnover approx.
- “No strike” record as each one a share holder
- Earnings - 6000 to 7000 p.m.

Approach

DISCIPLINE:

- No Alcohol Drinking during business hours
- Wearing White Cap during business hours (common identity)
- Carry Identity Cards

LATEST MARKETING STRATEGY:
Marketing message in the “dabba”

LOGISTICS

- Logistics is happening 24 hrs a day, 7 days a week and 52 weeks a year
- War against time – 10:30 am – 1:00 pm with reverse logistics
- Logistics is achieved by coordinating the following:
  - Network Design,
  - Information,
  - Transportation,
  - Inventory and
  - Warehousing

Now, if The dabbawala’s can achieve this performance, then….

Why not us?

Would You Accept…?

- A 1% chance of an aircraft crash landing at an airport each day?
- A 0.25% chance of a surgery being botched up every day at any hospital?
- A 0.05% chance of a Cashier giving you short money at a bank on any day?

How to make that happen?

How to become the best and the most competitive organization?
Who Decides Who Is The Best?

The Customer!!!!!!!

FUNCTION as the basic unit of organisation

FOCUS ON FUNCTIONAL REWARDS AND RECOGNITION

FUNCTION as the basic unit of organisation

CORE BUSINESS PROCESS MAP

SUPPLIERS

CUSTOMERS

PROCESS

PRODUCT DEVELOPMENT

REVENUE GENERATION

CRITICAL SUPPORT PROCESSES

FINANCE

INFORMATION MANAGEMENT

HUMAN RESOURCES

REGULATORY STATUTORY

PROCESS

PRODUCT PROCUREMENT

ORDER FULFILLMENT

MARKET DEVELOPMENT
Cricket!!

- There are two ways to win:
  - Hit more sixes and fours
  - Take more wickets faster
- These form the highlights shown on TV.

Cricket!!

- The second way is to make less mistakes:
  - Fewer no balls
  - Fewer dropped catches, etc.
- It may not be as sensational but is equally important

Cricket!!

It is a team game!!

Organizations!!

Organizations are the same.

Everyone has a role to play…

What Do Customers Want?

- Quality
- Cost
- Delivery
- Service & Safety

Levels of Fixes….

<table>
<thead>
<tr>
<th>Example: Toaster Manufacturing Corrosion Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1</strong></td>
</tr>
<tr>
<td>Fix the toasters that have corrosion problems:</td>
</tr>
<tr>
<td>a) units in the field</td>
</tr>
<tr>
<td>b) units still in house</td>
</tr>
<tr>
<td>How?? Replace damaged parts</td>
</tr>
<tr>
<td><strong>Level 2</strong></td>
</tr>
<tr>
<td>Fix the process for handling corrosive material:</td>
</tr>
<tr>
<td>a) in house</td>
</tr>
<tr>
<td>b) at suppliers</td>
</tr>
<tr>
<td>How?? Use “no touch” handling</td>
</tr>
<tr>
<td><strong>Level 3</strong></td>
</tr>
<tr>
<td>Fix the system that produced changes in designs that have problems like these.</td>
</tr>
<tr>
<td>How?? Incorporate as a part of all design reviews a check for possible corrosion problems.</td>
</tr>
</tbody>
</table>
### Levels of Fix Example

Example: Toaster Manufacturing Corrosion Problem

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fix the toasters that have corrosion problems:</td>
<td></td>
<td></td>
</tr>
<tr>
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</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>How??</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replace damaged parts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fix the process for handling corrosible material:</td>
<td></td>
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</tr>
<tr>
<td>a) in house</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>How??</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use &quot;no touch&quot; handling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fix the system that produced changes in designs that have problems like these.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How??</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporate as a part of all design reviews a check for possible corrosion problems.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Fix the process for handling corrosible material:

- a) in house
- b) at suppliers

How??
Use "no touch" handling

### Fix the system that produced changes in designs that have problems like these.

How??
Incorporate as a part of all design reviews a check for possible corrosion problems.

### Fix the toasters that have corrosion problems:

- a) units in the field
- b) units still in house

How??
Replace damaged parts

---

### Focus on Reducing Variation

- Off Target
- Un-predictable
- On Target
- Centre Process
- Reduce Spread

---

### Overall Six Sigma Approach

- Practical Problem
- Measurable Problem
- Practical Solution
- Measurable Solution

---

### Six Sigma

Methodology for executing specific projects that reduce process variability to eliminate defects within a process.
The Breakthrough Methodology

- Define
- Measure
- Analyze
- Improve/Innovate
- Control

Six Sigma - Practical Meaning

- 99% Good (3.8 Sigma) vs. 99.99966% Good (6 Sigma)
- 20,000 lost articles of mail per hour vs. 7 articles of mail lost per hour
- Unsafe drinking water for almost 15 minutes each day vs. 1 unsafe minute every seven months
- 5,000 incorrect surgical operations per week vs. 1.7 incorrect operations per week
- Two short or long landings at most major airports each day vs. One short or long landing every five years
- 200,000 wrong drug prescriptions each year vs. 68 wrong prescriptions per year
- No electricity for almost seven hours vs. One hour without electricity every 34 years

Process Sigma Overview

- Sigma (or \( \sigma \)) is a statistical concept that represents how much variation there is in a process relative to customer specifications.
- The Process Sigma value is based on “defects per million opportunities.”
- “Six Sigma” is equivalent to 3.4 defects per million

<table>
<thead>
<tr>
<th>Too much Variation</th>
<th>Moderate variation</th>
<th>Very little variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard to produce output with customer requirements (specifications)</td>
<td>Most output meets customer requirements</td>
<td>Virtually all output meets customer requirements (less than 4ppm outside specifications)</td>
</tr>
<tr>
<td>Low sigma values (0-2)</td>
<td>Middle sigma values (3-5)</td>
<td>High sigma values (6)</td>
</tr>
</tbody>
</table>

Lean

Methodology for addressing larger scale processes to eliminate non-value added work, improve work flow across the process, reduce variability.

Lean = Lean Thinking

What is lean thinking?

- Less waste and rework (lowers cost)
- Products and services that perform better and last longer
- Happier customers

“In short, lean thinking is lean, because it provides a way to do more and more with less and less – less human effort, less equipment, less time, and less space -- while coming closer and closer to providing customers with exactly what they want.”

The 8 Wastes
The heart of lean is eliminating waste. Waste can be defined as anything that does not add direct value to the end service or product from the customer’s perspective.

- Unnecessary movement of people; multiple hand-offs
- Motion

- Unnecessary movement of material or product
- Transportation

- Material or product that is used to cover for inefficiencies
- Inventory

- Anything that does not meet the acceptance criteria
- Defects

- Eligible time between processes when no work is being done
- Waiting

- Value in manufacturing is essential; excess requirements, processing a product that is not ready
- Over-production

- Adding unnecessary steps to a process; redundancies between processes
- Over-processing

- Talent
- De-motivating the workforce by not asking for input or recognizing success

The Eight Wastes

Value-Added and Nonvalue-Added Steps

**Value-added step:**
- Customers are willing to pay for it
- It physically changes the product
- It’s done right the first time

**Non-value-added step:**
- Not essential to produce output
- Does not add value to the output
- Includes:
  - Defects, errors, omissions
  - Preparation/setup, control/inspection
  - Over-production, processing, inventory
  - Transporting, motion, waiting, delays
NOTE: In addition to the slides presented on pp. 104 to 108, Dr. P. M. Kelkar presented the following slides in the second conference of October, 2013.

Need for Creativity & Innovation in Education

- Opportunities created by new economy, science, and ICT require new skill sets
- Digital world is changing landscape of education delivery. Class-room education getting replaced by distant education
- Students with standard graduation or diploma find difficult to get employment in industries (reduction in science graduates in last 10 years, 75 K Engg. seats vacant)
- Severe competition among best local and foreign colleges and universities to attract students. NAAC Certification not enough

Need for Creativity & Innovation in Education

- Worldwide ranking of Indian Universities very low, IIT Delhi 222/800. Low even among top 100 in Asia, Mumbai Univ. 601/800 (Punjab Univ. 225 in recent Times Survey >IITs 351)
- India has slipped 10 places in global competitiveness index (60/200)
- Students have a lot of choice: colleges, programs, universities (national or international) Why should they choose us?
- Students & parents tend to invest in high quality education (Skovde and Timmins failure) if it offers benefits they as perceive. If we do not provide those, they walk away

Areas for Creativity & Innovation

- Creativity and Innovation is required in
  - What level of students we target? (Kotak Foundation)
  - What programs we offer?
  - How we offer them? Delivery methods we use
  - Value we add to the student
  - How competitive we are compared to others in the same field?
  - Opportunities we provide for R & D and placement
Engineering Revolution

- Engineering is a backbone of any nation’s economy. Without engineers, scientific discoveries would not be translated in practice.
- Deloitte’s Global index 2013 puts India as 4th most competitive manufacturing nation behind China, the US and Germany.
- As per McKinsey report, manufacturing sector can create 90 million jobs by 2025.
- India moving slowly towards high-end engineering and manufacturing.
- India is moving up the value chain and adopting global standards in manpower training, technologies, processes and overall quality of goods and services produced.

Technology Reshaping Business

- Technology is driving a big rearrangement in the job market, disturbing their distribution over geographies and sectors.
- Inexpensive Robots are being developed to perform routine jobs and improve productivity.
- IT Automation is reducing jobs in remote infrastructure management. Finance automation improved productivity and also created new jobs.
- Pharma and Life Sciences Automation replacing traditional drug therapy with genomics, bioengineering and Stem cells and new jobs.
- E-learning, Big Data, Cloud and Mobility are creating new jobs.
- In Healthcare, automation and decision-support systems are helping doctors improve knowledge and surgical outcome.
- Remote and expanding healthcare is creating new class of professionals in between doctors and nurses who are trained on simulators.

Just suppose ...

- Virtual education became an universal reality.
- University gives approval for coaching classes to admit students for degree/diploma courses.
- Corporates take over education business.
- Students create digital learning resources and study themselves.
- Students work from home or elsewhere, no attendance requirement enforced.
- Colleges/Corporate start skill development programs below 10th or 12th std. to suits job needs.
- Timetable are flexible.
- VPM becomes Deemed University.

Instructional approach to creativity

- Encourage and establish creative environment.
- Focus on divergent thinking skills.
- Encourage complex thinking and feeling of processes.
- Foster interdependence.
- Allow time for incubation of ideas and responses.
- Model creativity e.g. Edward De Bono’s 6 thinking hats.
Careers 2030

- Family therapist to take care of basic health problems
- Renewable energy scientist
- Healthcare and Medical Assistants to run physician’s office
- Biochemists and Biophysicists to develop biological products that improve our life
- Digital Identity Planner
- Talent Manager to market products made by individuals
- Elderly Wellness Consultants
- Child Care Experts
- Urban Agriculturist
- Millennial Generation Advisor
Dr. S. Agarkar’s slides are already shown from pp. 98 to 99.
Creativity and innovation in education presents the nexus between innovation and education. In education, the passion is to search for new insights. The role of Information Technology (IT) in facilitating creativity and innovation is also being presented. Education technology innovations like e-books, virtual labs, simulators and other efficient learning facilities using ICT were discussed. The key factors which help achieving excellence in education, training, research and governance have been listed in the presentation. Different types of innovation as shown below were presented:

1. Business Model - DELL
2. Networking - WALL MART
3. Enabling - SIEBL
4. Core Process - GE Capital
5. Product Performance - MICROSOFT
6. MINDSET - Global Thinking is required

Exhibit 40: Types of Innovation
The presentation concludes with an effective quote:

Listen to the Exhortation of The Dawn!
Look to This Day!
TODAY well lived will make ----
Every Yesterday --- A Dream of Happiness
And
Every Tomorrow --- A vision of Hope

Kalidasa
Creativity and Innovation in Education
Presented by
Kirti Agashe
M.E (Electronics)
Head of Industrial Electronics
Department
V.P.M’s Polytechnic, Thane

What is Innovation?

Creativity & Innovation
It all begins with an idea.

• An idea is like a seed waiting to be planted, waiting to grow and mature into something beautiful.

• Innovation is the plant that results from planting and nurturing the seed.
• Innovation is ‘creativity implemented’
• Innovation is ‘idea into practice’
• Creativity is a thinking process
• Innovation is a productive process
• Innovation adds value to the idea

To be innovative is to “think outside the BOX”

To be innovative is to “think outside the BOX”

Technology: Boon for Education

E --- Education

Enthusiasm

E- Learning

• Computer Based Learning from Problem to Solution method

• Teachers should be a Facilitator A MENTOR

1913 --- Thomas Edison Books
will be out dated and all
knowledge will be based on
audio visual media

1993 Hole in the wall
Experiment Delhi NIIT and
Nearby slum “KAALAJI”
share a common wall

Where we passionately and methodically search for new insight

π = 3.14

π = 3.14
Key Effects of IT Age

- Digitalization
- Automation
- Robotization
- Miniaturization
- Specialization
- Customization
- Globalization
- Mutation

Scenario Change

- 1990 World Wide Web...
- DNA forensics
- Broadband
- Video History Archive
- Electronic University like Iowa
- Indoor playground
- 1-to-1 computing
- E-medical records
- Health care pooling
- Courseware camps
- Ad supported e-mail
- 100% E by 2003
- IP video and telephony
- GIS/GPS criminal tracking

Scenario Change ...

- Over 100,000 Cochlear Ear Implants
- Bionic limbs moved by thought
- Exoskeletons
- Limbs, joints and bones
- Carbon nanotubes

Spare Parts

Availability dates:

- Artificial Brain Cells - 2017
- Artificial Brain - 2035
- Artificial Eyes - 2010
- Artificial Eye Implant - 2024
- Permanent Mechanical Heart - 2010
- Synthetic Muscles - 2019
- Lungs And Kidneys - 2015

DATA: BRITISH TELEPHONE LABS in Business Week, March 2000 and in The Register, February 2005

The Old / New Key Questions

- Who teaches it?
- What is taught?
- When is it taught?
- Where is it taught?
- Why is it taught?
- How is it taught?
- How do we measure teaching?
- Who learns it?
- What is learned?
- When is it learned?
- Where is it learned?
- Why is it learned?
- How is it learned?
- How do we measure learning?

Job Description for a Teacher

- Teaching
- Assessment expert
- Diagnostic expert
- Curriculum designer
- Advisor
- Mentor
- Researcher/Writer
- Public servant
- Social worker
- Community and Parent Liaison
- Bureaucrat
- Policymaker
- Medical manager
- Content expert
- Technology integrator
- Disciplinarian
- Disability manager
- Secretary and data entry clerk
- And did I mention you have a life?
The E-Burn issues

The Innovative E- Solutions

- Are We Taking 100 % Advantage of the Inherent Advantages of IT in Education?
  
  Ummm...No

We Do Understand ..... 

- An Institution has a purpose to Brainstorm on Creativity and Innovation ....
- To bring harmony in Mind Emotion and Actions

"Whoever desires constant success must change his conduct with the times."

Do What Students Do

- Games and simulation
- Mix, mash and create
- IM
- Txt
- Cell
- MP3/Podcasts
- Surfing
- Blogging
- Email
- Music
- TV
- DVD's
- Viral advertising

Integration of Technology

Role of ICT (Information and Communication Technology)

- * Pursuit of Excellence
- * Credibility
- * Skills/ Domain Knowledge
- * Capacity Building / Competencies
KEY CHALLENGES AND STRATEGIC PLANNING

• Strategic Alliances
• Technology Enabled Learning
• Global Networking
• E-Content and Resources based Learning
• Research Collaborations
• Demand Driven PG and Ph.D Programme
• Strategic Location.
• Active Industry – Academy Interface
• Technology Incubation

• DRIVING THE LEARNING OF THE FUTURE, TODAY.

Education Technology Innovations

More Learning in a class room

• With print technology, notes can be circulated in advance

• For greater mastery over the subject matter, solving of questionnaire at the end of the session

Education Technology Innovations

Collaborative Learning

• Working in collaborative teams (study group) and networks that are not bound by the walls and grounds of your location.

• MIT, U.S having open courseware (on line study group photo)

Moodle accounts used in IITs and well known institutes.

MIT Study Group

Virtual Reality

• Use of E-books, Virtual Lab and Simulators

• Lab-view from National Instruments introduced in Diploma curriculum and successfully implemented in Polytechnic.

• Cost effective facility for a group of students

• Efficient learning facility even for a slow learner
• Innovative lab is important to bridge the gap between idea and implementation.

• Learning
• Innovation
• Excellence

Passion for creativity among Students/Faculty is important.

ICT Opportunities in Technical Education
• Internet
• World Wide Web
• Course Management Systems

• Collaboration tools
  – Audio/Video Conferencing
  – Virtual Classroom

• Mobile Learning

Keys to achieve excellence in education, training, research and governance
• Strengthen the academic and physical infrastructure for achieving excellence in teaching, learning, research and outreach programs
• Strategic plan for national and international collaborative research programs
• Promote academic programmes relevant to the social and economic needs
• Re establish network with other Centers /departments and laboratories in the country

Collaborative Training Programs

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Activity</th>
<th>Collaborating Institution / Agency</th>
<th>No. of Students Trained</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Computer Hardware and Maintenance</td>
<td>SAP Computers</td>
<td>60</td>
<td>2008</td>
</tr>
<tr>
<td>2</td>
<td>Sound/Video Engineering</td>
<td>Media Vision</td>
<td>07</td>
<td>2010</td>
</tr>
<tr>
<td>3</td>
<td>Audio Production</td>
<td>Mix box Studio</td>
<td>50</td>
<td>2013</td>
</tr>
</tbody>
</table>

International Collaborative Research titled “Artificial Heart” at Industrial Electronics Department, VPM’s Polytechnic, Thane. (Funded by UKIERI)
THE FACTS

• Innovation requires – Economic Value

• Success In Research – Prestige

• Success in Innovation - Prosperity
  * Technical Skills
  * Professional Skills
  * Business Skills

Why 1/5 th Population of world contributing so less?

• Education Systems
• Motivation received
• Opportunities available / offered
• Healthy Team Work
• Accountability / Bench mark
• Mindset and Strong Desire

Case Study

• It keeps Singapore economically strong.
• Singapore has one of the most rapidly developing economies in the world.
• What gives Singapore its competitive edge?
• It is ---- vocational education!

Singapore : An upcoming global scientific hub.

• In 1992, Singapore took a hard look at its own poorly regarded vocational education and decided to transform and reposition it
• Singapore studied where they want the economy to grow
• Developed a close linkage between education and economic development, studying and then
• Educated a rising workforce to be prepared accordingly.
• Dr. Law Song Seng led the creation of the Institute for Technical Education (ITE), which transformed the content, quality and image of vocational education

“hands-on, minds-on, hearts-on” ITE’s applied learning promotion

• A marketing plan to fight the sinking image of vocational education was implemented to reach out to parents, students, teachers and the community.
• American academic and government sectors are taking notice.
• The ITE received the IBM Innovations Award in Transforming Government, given by the Ash Center for Democratic Governance and Innovation at the Harvard Kennedy School
• In the United States, the bottom 25% of students drop out of high school, whereas in Singapore, 90% of the bottom graduate from the ITE and have decent paying jobs

National Center for Innovation in Career and Technical Education, U.S.

• Established in July 2012, to assess quality career and technical education programs

• To perform scientifically based research and evaluation and conduct training to expand the understanding, increase the effectiveness, and improve the implementation of career and technical education (CTE).
Technology Enabled Learning – Initiatives in INDIA

- Education and Research Network (ERNET)
  - First initiative by Govt. of India on ICT for Education & Research Community
  - Brought Internet to India
  - Set up a high-speed network with a back-bone bandwidth of 2.43 Gigabits (Gbps) per sec connecting 45 institutions
  - CDAC completed the Proof of Concept phase of GARUDA Teraflop Grid
  - NPTEL
  - Standardised e-Content.

KNOWLEDGE IS COMPETITIVE TOOL

- Japan - Electronics and Automobiles
- U.S.A. - Semiconductors, Defense and Aerospace
- Korea - Electronics
- Finland - Mobile Communication
- China - Mass Manufacturing
- Thailand - High Tech Manufacturing

Before You Retire or Die

- Cumulative machine intelligence becomes larger than cumulative human intelligence.
- GNR (Genetic, Nanotechnology and Robotics) combine to remake civilization as we know it.

End Objective

Survival

- We want to make sure that we are not bypassed by other delivery systems
- It is essential to assure ourselves that we are in competition with the availability of education materials, information technology and infrastructure.
Conclusions

- Education today is undergoing metamorphic Changes
- ICT provides a variety of technological solutions to enhance Learning
- Institutes of Higher Learning should prepare for change
- Virtual Labs, Virtual Class rooms and Virtual Universities would be replacing traditional Institutes
- Capacity and Competence Building is the NEED of the Hour

Conclusions

- Creativity produces surprising and original ideas with intellectual success
- We should not be afraid of changing the old-fashioned standards and traditional views on solving problems.
- Being flexible and original to make use of any opportunity visible
- The creative potential that nature has endowed to human beings is still much more powerful than any computer.
- We just need to switch it on.

Resources

- How To Manage Creative People” – www.charleswarner.us/indexppr.html
- Better Brainstorming” and “Creativity Techniques” www.charleswarner.us/articles/artindex.html

Listen to the Exhortation of The Dawn !
Look to This Day !
TODAY well lived will make ----
Every Yesterday --- A Dream of Happiness
And
Every Tomorrow --- A vision of Hope
Kalidasa
Mr. Narayan Barse re-articulated the same thoughts (pp. 63 to 64) which he had shared in the conference of June, 2013.

Mr. Sandeep Bhavsar re-articulated the same thoughts (pp 70 to 76) which he had shared in the conference of June, 2013.

**Additional Points Discussed:**

- Recently started vpmthane.channel on youtube. Working on the same. Will take six more months.
- **Dr. Guruprasad Murthy** let teachers have access to the databases not only within college but outside college too.
- Students know about on-line databases from orientation lecture.
- We have 1,25,000 books
- **Dr. Usha Raghavan** why not to have a competition among students?
Ms. Sukhada Tambe's slides are already shown from pp 82 to 85. The discussion which took place, in the course of the presentation and afterwards, is presented below:

Ms. Sukhada Tambe presented a video on Akbank, one of the largest banks in Turkey:

☞ **Ms. Sukhada Tambe to the audience:** what do you see in the video? How is this possible?
☞ **Mr. S. Rathod** co-ordination
☞ **Dr. K. Paria** strategy
☞ **Ms. Suhasini Shukla** planning
☞ **Focus**
☞ **Dr. Usha Raghavan** passion
☞ **Dr. V. Manjramkar** same momentum
☞ **Dr. M. Kolet** synchronization
☞ **Dr. K. Paria** no errors / zero defects
☞ **Dr. Usha Raghavan** practice
☞ **Dr. Guruprasad Murthy** planned simulation
☞ **Ms. Suhasini Shukla** leaders working as a team
**Slide on Learning to Be:**

- **Dr. V. Manjramkar** teachers have to be flexible.
- **Dr. Guruprasad Murthy** general awareness and PI should be introduced.
- **Dr. V. Manjramkar** to have inter-collegiate competition in our campus.
- **Dr. P. M. Kelkar** why not to indulge students in some fruitful social / academic activities because the otherwise they loiter in VPM’s sprawling, Thane College Campus.
- **Dr. K. Paria** banking and Finance started in Science college.
- **Dr. Guruprasad Murthy** M.Sc. in Finance a focussed course.
- **Ms. Kirti Agashe** Once a stage is set for some activity the same stage may be used for other activities too like seminars, workshops et al. This will reduce the time, money and effort in creating, dismantling and recreating stages for similar kind of programs.
- **Dr. K. Paria** PR from IGNOU

**Slide on Balancing Teaching:**

- **Dr. Guruprasad Murthy** UDCT is a good example. Focus on training and consultancy.
- **Dr. P. M. Kelkar** UDCT focus on identified areas.
- **Dr. Sna Farooqi** only research or only teaching will not work well. There has to be a balance between the two.
Dr. Sna Farooqi:

Comments on video:

- Dr. V. Manjramkar everyone has contributed
- Right move on the right time
- Dr. Sna Farooqi use of skills
- Ms. Suhasini Shukla right thing at the right time
- Ms. Nisha Vader right procedures
- Dr. Usha Raghavan co-existence
- Dr. K. Paria non-verbal communication / focus on goal
Resource Management: Focus on maximising output and minimising input is important. In financial parlance this is defined as return on investment with focus on maximising profits and minimising the investments. Again in general management, the same thought is articulated through the ratio of results / resources. Thus, to maximize ROI management has to explore the following options:

- Increased results (revenue)
- Decrease cost (including cost saving methods successfully deployed)
- Decrease in investment which includes divestment and effective and efficient use of investment.

A manager has to be effective and efficient. According to Peter Drucker effectiveness means doing the right things and efficiency means doing things rightly

Sources of Revenue:
- Fees
- Audience
- Third Party
- Consultancy
- MDP
Conducting exams – space hiring and academic resources
Hall and IT facilities
Centralised admission process
Dr. P. M. Kelkar value added new programs
Dr. Usha Raghavan funding from government agencies
Donations for establishing a chair
Ms. Kirti Agashe donations for sponsorship from professional bodies
Ms. Sukhada Tambe conduct of academic events. Stage set for rationalisation of expenditure
Ms. Nisha Vader fruitful collaborations are required
Ms. Kirti Agashe Thakur College gives classrooms even for film shooting
Dr. V. Manjramkar ATM Centre is required in the campus
Ms. Kirti Agashe A gymnasium in the campus will also help

Suggestions – Cost Management:
Rationalisation of expenses
Energy conservation – Switch off when don’t want it on. A dollar saved is a dollar earned
Dr. Usha Raghavan proper sharing of resources / academic and admin
Dr. K. Paria water wastage should be avoided
Ms. Kirti Agashe value analysis required of resources likely to be wasted e.g. unused answer sheets in booklets / supplements to be pulled out and put to reuse
Dr. Usha Raghavan paperless practice using ICT will help in cost saving
Dr. V. Manjramkar had another view and said it is better to have a hardcopy
Suggestions – Investment Management:

☞ Effective and efficient use of investment is necessary and the life of inflows and outflows to be ascertained.

☞ **Dr. P. M. Kelkar** setting of plant in Aurangabad is an example of how an investment decision is motivated by location which offers tax concessions (sales tax) which more than offset the additional cost incurred of locating the plant in Aurangabad in lieu of the Metro city of Mumbai.

☞ **Dr. Guruprasad Murthy** advocated the depreciation method based on asset utilization using the formula cost of asset / machine hours resulting in cost per machine hour. This is popularly known as the machine hour method.

☞ **Dr. P. M. Kelkar** stressed on productivity as the key to improved economic performance.

☞ Interest rates can never be negative

☞ Excess of anything is nuisance

☞ **Dr. Guruprasad Murthy** added by saying that “productivity is the genius of any organisation at work (Singapore Airlines)”.
The presentation on ‘Learning Resource Development’ traces the profile of learning resource development in VPM’s Polytechnic, the role of the MSBTE and also what needs to be done in order to rise above and beyond excellence. The presenter has made several suggestions which include the nature of interactions, making effective use of website for navigation and usability, authorship and validity of contents. The presentation also addresses specific evaluation criterion and M learning (anywhere anytime learning) viz. assessment (MCQ’s/ Quizzes), feedback on assignments and tasks, and motivational / instructional message.
The presentation will focus on

- LR development in polytechnic
- Role of MSBTE in developing LR
- Rising above and beyond excellence in LR—What we can do?

Learning Resources (LR) Development

Prof. T.V. Mohite Patil
Head, Medical Electronics department
V.P.M’s Polytechnic, Thane

LR development in Polytechnic

- Learning resources will refer to any person or any material with instructional content or function that is used for formal or informal teaching/learning process.
- Learning resources may include, but are not limited to, print and non-print materials; audio, visual, electronic and digital hardware/software resources; and human resources

LR development in Polytechnic contd----

- LR infrastructure in Polytechnic
- Rapid growth in usage of Electronic LR in polytechnic education
- Proper blend of non electronic and electronic LR
- LR utilization registers are maintained

Role of MSBTE in developing LR

- Responsibilities of MSBTE
- Curriculum Implementation and Assessment Norms (CIAAN) formats
- Academic monitoring
- Teaching plan
- LR by MSBTE:
  a] Text books  b] Lab manuals
  c] Teacher guide  d] VLC
Rising above and beyond excellence in LR - What we can do?

• Teacher—learning resource—his/her development?
• Adequate LR infrastructure.
• Selection, utilization and evaluation of LR.

Select resources that enrich and support curriculum
Take into consideration abilities, learning styles and maturity levels of learners.
Teacher should evaluate available resources and curriculum.

Rising above and beyond excellence in LR - What we can do?

• LR should be activity based rather than lecture based.
• LR should encourage students to question, think, respond, reflect and decide
• LR should provide multisensory instructions.
• While selecting digital LR, following questions to be considered:
   Does this LR have significant added value or capability over non digital LR?

Rising above and beyond excellence in LR - What we can do?

• Does it include
  – interactive features
  – Feedback
  – constructive engagement
  – assurance of ongoing availability
  – good instructional design,
  – assessment strategies
• Web resources : Requires sharper critical thinking skills than other media

Rising above and beyond excellence in LR - What we can do?

• Specific evaluation criterion
  – content
  – instructional design
  – technical design
  – social consideration
  – evaluation criterion for LR

 Young and senior teachers— usage of latest LR?
 Motivate students to refer reference books.

Rising above and beyond excellence in LR - What we can do?

Internet interactive
Unregulated contents
Commercial environment
Lacks traditional editors or gatekeepers
Three basic aspects for evaluating web sites
  Navigation and usability
  Authorship
  Validity of contents

Rising above and beyond excellence in LR - What we can do?

• Common errors to avoid while using ppt
  – Readymade ppts
  – Too many slides
  – Careless about text size, colours, font size
  – Images as space fillers
  – Many animations and not in the same folder
Rising above and beyond excellence in LR - What we can do?

Basics in making OHP transparencies – Rule Of Six
- six lines per transparency
- six words per line
- six mm smallest letter size
- six cm (3+3 on each side) margin

M learning - anywhere, anytime learning

- Assessment (MCQ’s/ Quizzes)
- Feedback on assignment & tasks.
- Motivational & instructional message.
The presentation by Dr. Usha Raghavan on ‘Research Experience in Technical Education’ addresses her experiences of research in technical education. The presentation relates research and development to creation of value via the triad pillars viz. innovation, technology and science, of course, with the help of proactive leadership through research. She identifies the possibility of change in technical education and also building effective application oriented learning problems, processes and manuals. She has suggested ways and means of operationalising the new learnings which require a changed team perspective and also a proactive management perspective. She has provided certain metrics and measures to quantify achievements of teachers and the institutions and concludes by saying that the “challenge ahead lies in motivating scientists to discover solutions”.
Research Experiences in Technical Education
Dr. Usha Raghavan

**RESEARCH EXPERIENCES IN TECHNICAL EDUCATION**

**BY**

Dr. Usha Raghavan

---

**Why Research?**

- Basic Research
- New Technology
- Implementation of Research and Innovation
- Teacher's Professional Development
- Dissemination
- Improved Teaching Learning process

---

**Research and Development**

- Leadership
- Innovation
- Application oriented knowledge
- Advanced knowledge
- Creation of Knowledge
- Science
- Technology
- Creation of value

---

**What is Research?**

- New findings in the fundamental theory
- New Effective and efficient processes
- New applications

One of these aspects have to be addressed to

---

**Problem**

- INNOVATION & APPLIED RESEARCH are essential to have major advances in education
- Overlooked in most policy debates.
- Under funded

Applied research requires interdisciplinary teams and by concentrating resources and expertise, the research can be made more effective and efficient

---

**My experiences**

- Choice of Guide
- Choice of problem
- Relevant Literature.
- Understanding and Paraphrasing the problem.
- Process based on application
- Devising the setup/standardizing the sample/comparing the results with results elsewhere in the world.
- Paper publication & thesis
How I Intend to bring about change?

- Research & Entrepreneurship inculcation in technical education
- Build effective application oriented learning processes & manuals

Incubate an enterprising business model in technical education

New Model Suggested

- Individuals identify their projects and work in small team (2 or 3) from concept till completion. Selects the technology partner along with external guides.
- Individuals develop highly learning enabling research solutions and works closely with external labs in arriving at the solution.
- Individual acquires the application knowledge while developing solution and imparts the operational knowledge / skills while installing the system. Constantly upgrades software for user friendliness and seeks external guides feedbacks for improvement.
- Individual ensures commercial viability for the seller, buyer and the user departments.

Learning starts as research project and ends as an enterprise

Operationalizing the New Learnings

- Opportunity tracking
- Conceptualization
- Finalizing scope & methodology
- Proposal submission, tie-up for technology
- Freeze deliverables
- Project execution
- Installation, commissioning & training

Changed Team Perspective

In the next three years develop ourselves to be the No. 1 research cum entrepreneurship oriented team among technical institutes.

Management’s Perspective

- A team of engineers divided by different skill sets & varied knowledge base and willing to train each other.
- A team united by their passion for technology and attraction for research, thereby imparting & inculcating in themselves application oriented knowledge
- Dexterity & Flexibility is their mantra for success.
- A team with an eye for current technology & heart for product development.
- Academicians cum Entrepreneurs functioning with common education system development goal.
What Next?

- Obtain Copy right / patents.
- Create research oriented specialized library and laboratories.
- Create Peer reviewed research papers.
- Have partnership with Entrepreneurs.
- Establish VPM brand in technical education.

Challenge Ahead

- motivating scientists to discover solutions

Levels of learning: Bloom’s Taxonomy

- 1. Remember
- 2. Understand
- 3. Apply (Analyze)
- 4. Evaluate
- 5. Create

Lighter Vein

- A cow was kept for Viva
- Pre MBBS – It’s a Cow
- Final MBBS – Perhaps a cow
- MD/ MS – Four legged animal with a horn and a tail, May be a cow or hypo pigmented buffalo
- PhD – This is a hypertrophied goat or an atrophied elephant with congenital anomalies.
- MORAL: The more we study, the more confused we are
The presentation by Ms. Vaishali Joshi on ‘Industry Institution Interface’ addresses the objectives, benefits, hindrances, challenges and gateways of industry-academia partnership. She has traced the benefits of such partnership to all stakeholders associated with academia and industry and has explained that though industry and academia are two different worlds they need to work in unison. She has presented the hub and spoke model and has made several suggestions for strengthening the bond between industry and academia which include, among other things, faculty and staff exchange, innovation teaching learning, internship, entrepreneurship development cell et al.
Industry Institute Interface

Bridging the G A P
Mrs. V.A. Joshi
M.E. (Instrumentation & Control)
HOD (Instrumentation engineering)

Agenda
Industry Institute Interface
- Introduction
- Objectives
- Benefits
- Hindrance
- Challenges
- Gateways
- Conclusion

Introduction
- Technical Education forms the backbone of development of a nation.
- Industry is the major consumer of technical institution product.
- The real requirement of industry will be explored only through effective interaction with them.
- The industry is facing Global competition, unemployment & underemployment.

Need
- Promoting innovation and technology transfer
- Ensuring that graduates have the skills and knowledge required to effectively contribute to the workforce
- Market vulnerable to competition of products and services
- Strategic alliances and partnership can translate into State-of-the-art equipment, exchange of experts and opportunities for capability development

Benefits
Institutes
- Up to date curricula
- Source of revenue generation by consultancy and R & D
- Source of manpower employment
- Societal relevance
- Acquisition of brand name

Industry
- Availability of employable manpower
- Increased productivity

Faculty
- Exposure to latest industrial practices for more effective teaching-learning process

Benefits contd...
Students
- Gain by the way of Hands-on training
- Reduction in learning curve in industry practices
- Decision making on career choice

Society
- Gain by the way of improved quality of goods and services

Nation
- Effective harnessing of the resources, talents and experience within the country
- Greater efforts at self reliance and indigenousness
Why is Industry divorced from academia

- Goals and objectives of education system and the Industrial system do not match fully
- Obsolete lab facilities do not attract industry to interact with the institute
- Education imparted is not job oriented
- Examination system puts emphasis on the reproduction of memorized facts
- Passive response from Industries regarding the assessment procedure of the students
- Rigidity of rules and regulations and lack of autonomy

Challenges for Academia

- Rapid pace of technology makes skills obsolete at greater pace before everyone else could learn from them
- It has been observed that the economic pace of technological change makes
  - 50 percent (50%) of computer knowledge irrelevant within one year,
  - Technological knowledge in three years,
  - Specialized vocational knowledge in five years and
  - Higher education knowledge in 10 years.

Existing Industry Interaction

- Curriculum development
- Study visits/Industrial tours
- Guest/Expert Lectures
- Scholarships
- Apprenticeship – Governed by govt. policies that mandates industries to share the cost on trainings
- In plant training - Sandwich diploma programmes
- Sponsored Projects
- Job fairs/Placement Activities/career oriented programs
- Science Parks
- Government Schemes
  - AICTE
  - MSBTE

AICTE Schemes

**Industry Institute Partnership Cell (IIPC)**

- Objective(s)
  - To establish institute-industry liaison by encouraging:
    - (1) conduct of industrial training programmes
    - (2) facilitating exchange of resource personnel
    - (3) carry out industrial R&D
    - (4) conduct of industrial visits
    - (5) developing appropriate curricula and
    - (6) undertake consultancy services, etc.

**Entrepreneurship Development Cells (EDC)**

- Objective(s)
  - To encourage students to consider self-employment as a career option and provide training in entrepreneurship

AICTE Schemes

**National Facilities in Engineering & Technology with Industrial Collaboration (NAFETIC)**

- Objective(s)
  - To establish national level facilities in the frontier areas of Engineering & Technology through collaboration between industry(s) and institutions for product development, basic research, trouble shooting, consultancy, testing & training purposes.

**Nationally Coordinated Project (NCP)**

- Objective(s)
  - To plan, coordinate & execute integrated R&D programmes at national level by a group of institutions. The technical/financial/administrative deliverables are to be spelled out clearly by the networking institutions with the lead institution being an IIT/IISc/IIM/NIT.
**Hub and Spoke Model**

- State Level Committee
  - Industry Authorities, MSBTE and Institute Representatives
- Champion Industry
- Institute 1
- Institute 2
- Institute 3
- Institute 4
- Institute 5

**Strengthening The Bond**

**Some Suggestions**

**Innovative Teaching-Learning**

- Emulating Industry Environment – using latest equipment/s
- Opportunity of engaging in industry ongoing projects
- Develop entrepreneurial, problem solving and creative thinking skills
- Case study Based Learning

**Faculty and Staff Exchange**

<table>
<thead>
<tr>
<th>Motivation for Industry</th>
<th>Motivation for Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to well trained students and faculty</td>
<td>Effectively transfer technical knowledge and skills to students</td>
</tr>
<tr>
<td>Increased access and exposure to technical services, academic and management approach by teachers which provides new ideas for product innovations</td>
<td>Adds in skill development and effectiveness of the teaching-learning process because of the actual field experience of the teacher of industrial background</td>
</tr>
</tbody>
</table>

- A suitable weightage for industrial experience should be given while recruiting the faculty and vice-versa

**Internship**

- Dual apprenticeship program approach
  - Theoretical training is given by the institutes
  - Skill based training is given by the industry

**Entrepreneurship Development Cell**

- Government-sponsored sector-specific incubators are set up to take 15 to 20 small and medium enterprises
- A shared scheme between government institutions and training providers to encourage entrepreneurship
**Evaluation System**

- Practicing technical professionals in the field may be engaged in the assessment process
  - to identify possible technical skills gaps,
  - inadequacies in training focus, and
  - competency matching with the kind of work available in the industries
- These are facilitated through various stages through interviews, seminar and projects.

**Tapping the CSR quotient**

- Corporate Social Responsibility is defined by the World Bank as "the commitment of businesses to behave ethically and to contribute to sustainable economic development by working with all relevant stakeholders to improve their lives in ways that are good for business, the sustainable development agenda, and society at large".

  - Beyond donations and assistance – Train the trainer
  - Sponsorship

**Conclusion**

- Need to integrate technological knowledge and skills in education and training to develop skilled engineers
- Academic and administrative autonomy may be granted to institute
- The course curriculum should be designed as per job profile and its revision has to be commensurate with requirements of the present and new emerging technological demand.
- Industrial training for students should be made compulsory for about 1-3 months in a year as a part of the curriculum and it should also be credited

- Students should be encouraged to undertake the final year projects in Industry partly or fully with a joint supervisor from industry
- Institute should provide information to industry about the facilities available in Institute, which might be used by the industry for its benefit – like calibration/certification
Social Sensitivity and Technical Education, a presentation by Ms. Nisha Vader has addressed the theme while presenting different perspectives of technical education. The focus is on corporate social responsibility, institutional social responsibility (ISR) and also a model for implementing ISR. The thrust area is energy management and she has presented various dimensions. She has listed the sustainability parameters which include, to list a few, good ISR policies, good infrastructure, socio cultural, media exposer et al.
Social sensitivity and Technical education

Concept & model

A Presentation

by

Mrs. N. V. Vader
Energy Manager
Head of Elect. Power Syst. Depart.
V.P.M's Polytechnic, Thane

Saturday, 5th October, 2013

Social sensitivity and Technical education

• Science and technology are main driving force for societal development.
• Technology is the application of science for human benefit.
• The synergistic relationship between T & S occurred from the dawn of humankind, with the invention of simple tools and continues into modern technologies with the mobile phones and computers.

Education..... sociological perspective

• Education does not arise in response of the individual needs, but it arises out of the needs of the society of which the individual is a member.

• It is a system of society, by society and for society.

• It is not possible to separate or draw any line of demarcation between the two concepts. The relationship between educational system and society is mutual.

Corporate Social Responsibility (CSR)

• Corporate Social Responsibility is a form of ethical behaviour that requires that organizations understand, identify, and eliminate unethical economic, environmental, and social behaviours.

• CSR is a process to achieve sustainable development in societies

Technical education ..... ...... in 21st Century

Theme : Today education is not just to educate masses, but to eradicate poverty and walk on the progressive path to peace and sustainable development.

Preparing 21st Century Students for a Global Society

Institutional Social Responsibility(ISR)

• Institutions, as the centres of knowledge generation and sharing, perform a very important role in addressing the world’s socio-economic and environmental issues by promoting sustainable solutions.
• Rational and Discipline-oriented Knowledge will be completed by.....
  • Social Learning
  • Leadership, Community and Team Building skills
  • Civic Education
  • Awareness for Social Responsibility
  • Sensibility for Challenges in Society
SS or SR .......?

SS are social needs / issues which are to be analyzed to eradicate up-to the grass root level, to find a creative solution through engineering & scientific knowledge.

SS or SR .......?

Fukushima leak classified as ‘serious radiation incident’

HC observation on mobile towers unscientific

SS challenges...

• Biological challenges
• Bio-psychological issues
• Economical challenges
• Justice issues
• Technical challenges

How to handle SS?

ISR - Model of Technical institute

"I don’t believe that the solutions in society will come from the left or the right or the north or the south. They will come from islands within those organizations, islands of people with integrity who want to do something."

Karl-Henrik Robert - Founder of The Natural Step

"Social responsibility is much bigger than supporting worthy causes. It includes anything that impacts people and the quality of their lives."

William Ford Jr., Chairman, Ford Motor Co.
V P M’s Polytechnic’s
Energy Sensitivity and it’s ……

Formation of Energy management cell-2011
Research work in Hydrogen cell 2008
TP for Faculty of polytechnics 2008
Devp. Of Course A D Energy Management 2003
Introducing subject ECA in MSBTE - 2006
Follower- Auto. Polytechnics & Universities
Formation of Synergy group 2006
Regional level seminar on Energy conservation 1995
Regional to national level
Initiated mind sets

Need:
• Electrical bills lakhs of
• Commercial tariff
• Supply parameter varying
• Damaging equipment
• Wastage of Energy
• Lack of awareness

Resources:
• Energy manager per institute
• Well-informed members
• Assistants, Volunteers

Outcome:
• Energy management Role model
• Energy saving in units and rupees
• Gain in Performance evaluation procedure

Electricity Conservation cell
• Mrs. S. S. Kulkarni
• Miss Nishita H.

Water Conservation cell
• Mr. V. A. Walavalkar
• Mrs. S. A. Joshi

Institutional Fire Safety cell
• Mrs. G.A.Pujare
• Mrs. B. A. Pitkar

ISR- Energy Management Cell
Chairperson- Prof. D.K. Nayak
Energy Management Cell
Co-ordinator- Mrs. N. V. Vader

ISR of Polytechnic — upshot....

District level Energy park –2007
Automatic Weather Station -2008

Social awareness
It is with faith that one should take up social service.

Sri Sathya Sai Baba

It is with faith that one should take up social service.

Sri Sathya Sai Baba
I SR of Polytechnic —Career route

- Overseas education:
  - VPM has signed the MOU with Northern College of Applied Arts and Technology, Timmins, Province of Ontario, Canada.
    - Electrical Engineering (Advance Diploma)
    - Instrumentation (Industrial Diploma)
    - Computer Engineering (College Diploma)

- Businessperson

  - Commenced: 2010
  - Activity: seminar, workshop
  - Benefiter: 120
  - Outcome: 02 Entrepreneurs

Opportunities for Enhancement of I SR activities

- Center for Renewable energy Technology
- Institute for Waste management
- Center for solar energy system
- Center for Energy and Water conservation
- Centre for Application in Rehabilitation Engineering

Center for Recruitment of Human Resources

SS of "Institutions of national importance",

- Centre for Distance Engineering Education Programme
- Centre for Environmental Science and Engineering
- Centre of Studies in Resources Engineering
- Centre for Formal Design and Verification of Software
- Centre for Technology Alternatives for Rural Areas
- SINE, Society for Innovation and Entrepreneurship
- National program on Techno. Enhanced Learning

VPM GIS’s…???????

SS of "institutions of national importance",

- Centre for Distance Engineering Education Programme
- Centre for Urban Science and Engineering
- Centre of Studies in Resources Engineering
- Centre for Formal Design and Verification of Software
- Centre for Technology Alternatives for Rural Areas
- SINE, Society for Innovation and Entrepreneurship
- National program on Techno. Enhanced Learning

"We need a new system of values, a system of the organic unity between humankind and nature and the ethics of global responsibility."

Mikhail Gorbachev, President, Green Cross International
Mr. Avkash Jadhav presented his thoughts which included the following:

1. A survey, with a sample of 5000 college students in the city of Mumbai, was conducted to assess the perception of students regarding the value of the countries education system vis-à-vis the time, effort and money invested.

2. According to the study only 16% feel that the system is practical in orientation, 24% that the online admission process is student-friendly and 22% that facilities for higher education are up to the required standards.

3. Students feel the pressure of learning instead of enjoying the process of learning. Students seeking admission to foreign universities take the step to go beyond the shores of the country because our education system lacks “sensitivity, flexibility and openness”.

4. The voice of decent against the education system seems to be rather uniform and ubiquitous.

5. The survey concluded that Education system doesn't give value for money.
The presentation highlights various possible approaches to make DR VN BRIMS a world class institution. The physical and human resources, the teaching learning process, research and development efforts have been addressed. Suggestions have been made with respect to improved employability of students, effective research output, further improvements in teaching learning and related process. The findings of the presentation are presented below along with a timeline for implementation:

**Exhibit 42: Findings**
- Positive Governance
- Excellent Core Faculty
- Highly Qualified Visiting Faculty
- Foreign Language Center
- Well equipped IT Center
- Resourceful Library

**Exhibit 43: Timeline for Implementation and Anticipated Results**
- Teaching Learning – 3 years
- Employability – 5 years
- Research – 5 years
- Infrastructure upgradation - 3 to 5 years
Objectives

• Identify key areas in DR VN BRIMS to achieve level beyond excellence
• Analyze and transform DR VN BRIMS to world class management institute

Methodology

• Primary Data
  • Seeking information from staff member
  • Observation
• Utilizing Secondary Data
  • Comparative study
  • Study material provided

Rationale

360˚ development of DR VN BRIMS with special emphasis on
Teaching Learning Process,
Employability
Research.

NBA Model deployed for presentation

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Weightage</th>
<th>DRVNBRIMS</th>
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</thead>
<tbody>
<tr>
<td>Organization &amp; Governance</td>
<td>8</td>
<td>6.5</td>
</tr>
<tr>
<td>Financial Resources, Allocation &amp; Utilization</td>
<td>7</td>
<td>5.5</td>
</tr>
<tr>
<td>Physical Resources</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Human Resources Including Faculty &amp; Staff</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>Human Resources of Students</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Teaching Learning Process</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>Supplementary Process</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Research, Development &amp; International Efforts</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>76</td>
</tr>
</tbody>
</table>
Organization and Governance

- Director
- Director General
- Dean
- Professor
- Assistant Professor

Physical Resources

**Available**
- Building
- Project Discussion Room
- Resourceful Library
- IT Infrastructure
- Well Equipped Auditorium
- Seminar room
- Canteen
- Gymkhana
- Administrative Office
- Boys/ Girls Common Room
- Tea / Coffee Vending machine

**Desirable…**
- Easy Access from main gate
- First Aid Clinic
- ATM Center
- Transport Facility
- Hostel Facility
- Disaster Management Plan

Physical Resources

**Available**
- Building
- Project Discussion Room
- Resourceful Library
- IT Infrastructure
- Well Equipped Auditorium
- Seminar room
- Canteen
- Gymkhana
- Administrative Office
- Boys/ Girls Common Room
- Tea / Coffee Vending machine

**Desirable…**
- Easy Access from main gate
- First Aid Clinic
- ATM Center
- Transport Facility
- Hostel Facility
- Disaster Management Plan

Human Resources including faculty and staff

**Non Teaching Staff**
- Admin Staff
- Visiting Faculty
- Core Faculty

**Human Resources for Students**

**Intake**
- Regular Students
- Alumni

**Human Resources including faculty and staff**

- Non Teaching Staff
- Admin Staff
- Visiting Faculty
- Core Faculty

**Physical Resources**

- Available
- Desirable…
Human Resources for Students

Intake

Regular Students

Alumni

Teaching Learning Process

- Role plays
- Case Studies
- Quizzes
- Classroom Presentations
- Group Work –Team Learning
- Management Films
- Management Games
- Guest Lectures
- Experiential Learning
- Book Reviews
- IT Driven Teaching

Suggesting...

- Lectures
- Group Discussions
- Industrial Visits

- Paper Presentation
- Projects- of societal relevance
- Debates
- Soft skills

Supplementary Processes

- Summit
- Conference – entrepreneurship, effective participation of students
- Workshop- e.g. Safety Awareness
- Summer Training

Research, Development & International Efforts

- Research Papers
- Articles from Peer Reviewed Journals
- Research Projects
- Patents
- Collaboration with Foreign Universities
Research, Development & International Efforts

- Research Papers
- Articles from Peer Reviewed Journals
- Research Projects
- Patents
- Collaboration with Foreign University

Proposal regarding...

- **RESEARCH**
  - Projects relevant to society
  - Patents
  - Presentations of visiting faculty on web
  - Publishing World class journals
  - Faculty publications - peer reviewed journals - impact factor journals
  - Focus: India centric problem
  - Consultancy

- **TEACHING & LEARNING**
  - Syllabi matching to world class institutions – MDP, CEP, QDP, etc.
  - Building and implementing education interchange programme
  - Projects relevant to society
  - Career fest
  - Presentations of visiting faculty on web
  - Earn and learn scheme
  - Upgrading educational standard
  - Development of e-learning material
  - Alumni contribution

- **EMPLOYABILITY**
  - Projects relevant to society
  - Career fest
  - Employer’s feedback
  - Alumni contribution

- **OTHERS**
  - Marketing management course GOI
  - Visiting faculty Designations, Organizations
  - Exam timetable
  - Residential facility
  - Feedback from alumni
  - DR VN BRIMS entrance
  - Facility for
Any other suggestion

- Counseling – Parent & Students within GOI and vicinity
- Exposure
- Informative Electronic Display
- Energy Conservation
- ISR towards GOI
- Conference on Entrepreneur & Intrapreneurs
- Inviting Alumni

Conclusion

Management is doing things right, Leadership is doing right things ...
The presentation traces the historic perspectives of VPM’s B. N. Bandodkar College of Science. Given that the college is already an A grade as per NAAC re-accreditation and also the best college of University of Mumbai the focus for reach is on creativity, research and development, student-centric activities, socially sensitive challenges, entrepreneurship development, industry institute interaction and other novel lateral approaches to manage science education. The slide below is indicative of the vision of the new areas to be addressed to transcend above and beyond the present level of excellence.
How to make VPM’s B N Bandodkar College of Science a World Class Institute of Science?

AN OVERVIEW

- Objectives
- Methodology Adopted For Study
- Results And Discussion/ Compilation Of Findings
- Time Line For Implementation
- Conclusion

Objectives

- To develop models which make resource management effective and efficient.
- To enhance the institute environment for social sensitivity.
- To augment affiliation between practical field and theoretical environment.

Methodology

- Survey
- Personal Interviews
- Questionnaire
- Intra Group Brainstorming Sessions
- Web References
- Duration Of Study: 6TH- 17TH OCTOBER 2013

B.N.Bandodkar College of Science, Thane

- Year of Establishment: 1969
- NAAC Accredited: B++
- NAAC Reaccredited: A Grade
- Best College Award.
- Selected for Fund for Improvement of Science and Technology Infrastructure in Universities and Higher Educational Institutions (FIST) ‘O’ level
Findings

• Need of world class planning and implementation.
• Need for strengthening of HR.
• Space Crunch.
• Student Teacher Ratio.
• Emphasis on Social Sensitivity.
• Call for Energy Audit.
• Steps to increase Industry contribution.
• Ethical Environment.
• Need for classrooms with technical aids.

Recommendations and Suggestions

• Infrastructure
• Creativity and Innovation
• Research and Development
• Training Programs
• Student Centered Activities
• ED Cell
• Industry Institute Interaction
• ISR (Institute Social Responsibility)
• EM (Energy Management)
• Sustainability

INFRASTRUCTURE

• Sustaining this wonderful asset created on ‘Jnanadweepa’.
• Overcoming the space crunch.
• Increasing the capacity of laboratories.
• Updating of laboratories as per world standards.
• ICT enabled classrooms.
• Space in classrooms between benches.
• World class washrooms.
• Hostel facilities for outstation students from different parts of India and the globe.
• Increase in sports facilities.

CREATIVITY

• Sky is the limit.
• Increased creative use of ICT, electronic media
• Increased use of laptops and LCD facilities
• Teachers spending creative and constructive time with learners
• Teacher : student ratio- does it affect creativity?

CREATIVITY

• Creative steps to fortify and increase the academic reputation of the institution.
• Students are reflection of the institution.
• Inculcation of values.
• Basic discipline.
• Sankalpana: let us remain honest.

RESEARCH AND DEVELOPMENT

• World class infrastructure.
• Motivation for research.
• Peer reviewed publication.
• Increasing the benchmark.
• Involvement of students.
• Teamwork with VPM’s GOI.
• Enhancing the collaborative research work.
TRAINING PROGRAMS

• Industry training.
• Content updating programs.
• Soft skill training.
• Value added courses.
• Society need based courses.
• Induction program.
• Research oriented training programs.

Student Centered Activities

• To enhance the student’s perception about the subjects they are opting.
• Greater options for the subjects
• Faculty outsourcing (intra-institutional and inter-institutional)
• Earn and learn schemes e.g. Research Assistant/Teaching Assistant
• Sport academy culture.
• Student’s hostel facility.

Entrepreneurship Development Cell (EDC)

• Formation of the EDC.
• Student’s involvement in college news bulletins.
• Student orientation towards research.
• Add on & bridge courses.
• Collaboration with the industries and Govt. bodies.

Social Sensitive CHALLENGES

Social responsibility
Energy issues
Waste management
Water conservation
Unemployment

"Social responsibility is much bigger than supporting worthy causes. It includes anything that impacts people and the quality of their lives."
—William Ford Jr., Chairman, Ford Motor Co.

Opportunities for Enhancement of ISR activities

• Center for Renewable energy Technology.
• Institute for Waste management.
• Center for solar energy system.
• Center for Energy and Water conservation.
• Centre for Application in Rehabilitation Engineering

B.N. Bandodkar’s ISR MODEL

Social issues .......... SR Centres .......... Activity .......... Output .......... Outcome

B.N. Bandodkar’s ISR MODEL

Social issues .......... SR Centres .......... Activity .......... Output .......... Outcome

B.N. Bandodkar’s ISR MODEL

Social issues .......... SR Centres .......... Activity .......... Output .......... Outcome

B.N. Bandodkar’s ISR MODEL

Social issues .......... SR Centres .......... Activity .......... Output .......... Outcome

B.N. Bandodkar’s ISR MODEL

Social issues .......... SR Centres .......... Activity .......... Output .......... Outcome
B.N. Bandodkar’s Energy Management Cell model

Need:
- High electricity bills
- Commercial tariff
- Varying supply parameter
- Damaging equipment
- Wastage of Energy
- Lack of awareness

Resources:
- Energy manager per institute
- Well-informed members
- Assistants, Volunteers

Outcome:
- Energy management Role model
- Energy saving
- Gain in Performance evaluation procedure

Supported by:
- IREDA – EC projects
- MNRE – RE projects

Industry Institute interaction

Mikhail Gorbachev, President, Green Cross International

We need a new system of values, a system of the organic unity between humankind and nature and the ethics of global responsibility.”
This presentation addresses the question how to make VPM’s Polytechnic a world class polytechnic. The key factors presented include human resource development, collaboration / diversification, strategic partnerships, interactions with professional bodies, benchmarking, management information system customized to meet the needs of an educational institution (educational information system), industry-institute interaction, entrepreneurship development, teaching learning process, research, alumni association. The Singapore and USA Polytechnic institutions have been used as a benchmark to make the dream, of RAABE, come true.
### Exhibit C & D (Ngee Ann Polytechnic Singapore Polytechnic, USA Polytechnic)

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Existing and availability %</th>
<th>Areas of Improvement %</th>
<th>Areas of Improvement %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Reputation</td>
<td>80%</td>
<td>20%</td>
<td>Sustainability</td>
</tr>
<tr>
<td>Entrepreneurial culture</td>
<td>20%</td>
<td>80%</td>
<td>ED cell</td>
</tr>
<tr>
<td>Faculty conducting Research</td>
<td>20%</td>
<td>80%</td>
<td>Publication of books, monographs, papers</td>
</tr>
<tr>
<td>Projects</td>
<td>20%</td>
<td>80%</td>
<td>Tie ups with IIT, MIT, Industry</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>40%</td>
<td>60%</td>
<td>Girls common room, AV room, Gym, Sports</td>
</tr>
<tr>
<td>Student contribution in learning/Student</td>
<td>60%</td>
<td>40%</td>
<td>Motivation, self learning</td>
</tr>
<tr>
<td>Industrial Institute Interaction</td>
<td></td>
<td></td>
<td>Emphasis on collaborative programmes</td>
</tr>
<tr>
<td>Teaching, learning Process</td>
<td>75%</td>
<td>25%</td>
<td>Communication skills of students, new faculty</td>
</tr>
<tr>
<td>Scholarship &amp; Awards</td>
<td>50%</td>
<td>50%</td>
<td>Open category students,</td>
</tr>
<tr>
<td>Research Centre Collaboration</td>
<td>30%</td>
<td>70%</td>
<td>Faculty needs motivation</td>
</tr>
<tr>
<td>Revenue Generation</td>
<td>20%</td>
<td>80%</td>
<td>Developing centre of excellence in</td>
</tr>
<tr>
<td>Examination</td>
<td>50%</td>
<td>50%</td>
<td>Online exams</td>
</tr>
</tbody>
</table>

**Exhibit 46: Exhibit C & D (Ngee Ann Polytechnic Singapore Polytechnic, USA Polytechnic)**


**How to make VPM's Polytechnic a world class Polytechnic**

**Introduction Maharashtra State:**
- Present Scenario of Intake
  - Mrs. Vinda Majramkar

- Human Resources Development
  - Mrs. S.S. Jape

- Strategic Partnerships/collaborations
  - Mrs. Kirti Agashe

- Educational Information System
  - Mr. T.V. Mohite Patil

- Industry institute Interaction

- Teaching Learning Process
  - Infrastructure
  - Mr. T.V. Mohite Patil

- Alumni Association
  - Mrs. Kirti Agashe

- Library

- Projects

- Research Culture

- Conclusion

**Objectives and Methodology**

- To suggest the steps, methods required for making polytechnic institute a world class institute

- Methodology used:
  - Discussions
  - Experience sharing
  - Website
  - Exhibits C/D provided
  - Material given

**Introduction**

- Increasing Number of Institutions competition

- Rapid changes in technical education system in foreign countries.

- Need of periodic review of technical education system in view of advent of Information Technology

- Increasing expectations of stakeholders

- Fulfilling the expectations of Industry

- Entry of foreign universities, etc

**Maharashtra State: Present Scenario of Intake**

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Year</th>
<th>Intake</th>
<th>No. of Institutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering polytechnic</td>
<td>2011-12</td>
<td>114268</td>
<td>309</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>2011-12</td>
<td>9170</td>
<td>147</td>
</tr>
<tr>
<td>HMCT</td>
<td>2011-12</td>
<td>530</td>
<td>10</td>
</tr>
<tr>
<td>Architecture</td>
<td>2011-12</td>
<td>2167</td>
<td>43</td>
</tr>
<tr>
<td>MBA</td>
<td>2011-12</td>
<td>34995</td>
<td>366</td>
</tr>
<tr>
<td>MCA</td>
<td>2011-12</td>
<td>8383</td>
<td>127</td>
</tr>
</tbody>
</table>

Source: Dr. S.K. Mahajans director DTE, speech on 11 JUNE 2011

**Human Resource Development**

- Policies for staff recruitment

- Orientation for staff

- Language and soft skill development

- Mentor / Counseller

- Routine Medical check up for students and staff

- Staff appreciation and web display

- Allocation of one staff for publicity of achievements

**Excellence**

- "We should not judge people by their peak of excellence; but"

  "...by the distance they have traveled from the point where they started."
Excellence

- “To fight and conquer in all our battles is not supreme excellence; supreme excellence consists in breaking the enemy’s resistance without fighting.”

- “Being the best in India is not adequate, Indian firm should not aspire to be the best Indian company but the best in the world” – Ross Fubini venture partner of Canaan Partners reports Business standard article – 17th Oct 2013

- Core competence, Competitive advantage, Focus strategy on One PROBLEM Solutions, Technology to grow like companies in silicon valley

Collaborations / Diversification

Focus/ diversification?

1) Concentric Diversification (Govt Institutes, MSBTE, ITI, NCTVT/BTC)
Vocational/Technical Education Related, Job oriented, ITI—Radio engineering, piping, CAD/CAM, Sound engineering, CCTV

2) Conglomerate diversification (Short term)
Next to IT - Beauty, Beauty parlour courses, Music, YCMOU, Distance Education (Short term certified)

Strategic Partnerships

1) Explore the possibility of cooperative research through signing MoUs with premier educational institutes in India (viz. IITs, IITIE, NITs, etc).
A) Research institutes
B) Reputed industries in the vicinity.

2) Make efforts for student exchange, faculty exchange, etc

3) Collaborative Programmes with other Institutes or industries

4) Revenue through Lease (IT facility, Auditorium, Labs for experimentation

5) Visits of Other Polytechnics, schools for certain projects like Energy park, Automatic weather station, Thermopac

Interaction with Professional Bodies

- Faculty members of institutions should be encouraged to become life members of various professional bodies (e.g. IEEE, IIEE, CSI, ISTE)

- Student chapters of professional bodies should be started at institute level.

- Students should be motivated to participate in professional body activities.

Benchmarking

- All the technical education institutes should benchmark themselves with best in class i.e. NITs, IITs, IIMs, Foreign Universities.

- Institute should make efforts to follow best practices like syllabus, teaching-learning process, laboratory infrastructure, etc from other best in class institutes.

- These institutes must make efforts to sign MoUs with other institutes so that student exchange, faculty exchange, infrastructure sharing can be adopted.

Educational Information System (EIS)

- Moodle — Sharing of resources
- Online tests/exams
- Online Attendance/mobile —
- Recent software in the Specialization field — Simulation, CAD/CAM, SAP, ASPIRN, Cloud computing
- Database mgt
- Virtual Classrooms, Virtual labs —
- Integration of processes and services
- Knowledge Management
Industry Institute Interaction (Internal Revenue Generation)

- Organize Continuing education programmes for industry personnel.
- Testing and calibration services.
- Consultancy services on industrial problems.
- Research and Development activities.
- Participation in curriculum design,
- Providing opportunities for individual student/group of students to undertake project on live problems in industry.
- Participation in BOG, Academic Council, Board of Studies, Faculty Recruitment Committees, etc.
- Assisting institutes in establishing new laboratories, providing literature on new technologies, and offering their shop-floors as substitutes for laboratories.

Entrepreneurship Development Cell

- Innovation and Creativity Cell.
- Provide platform for interaction--
- Mentorship Programme ----
- Arrange Lectures on entrepreneurship by successful entrepreneurs from time to time.
- Seed capital to needy students for potential projects related to entrepreneurship. ----

Teaching Learning Process

- MSBTE guidelines
- Practical oriented
- Innovative methodology for teaching
- Learning resources utilization
- Industry Participation in TLP

Infrastructure Development

- Applying for research project grants for infrastructure development and upgradation.
- Scrap equipments from nearby industries, institutes, hospitals. Models in laboratories through final year students project work.
- Develop laboratories with the help of industry.
- Girls common room
- Sports activities and Audio visual room

Alumni Association

- Alumni ---- Brand Ambassador.
- Interaction with Alumni
- Develop educational infrastructure in the institute with the help from Alumni
- Development of corpus through alumni
- Active Involvement of alumni

Library

- Digital Library facility awareness in campus students
- Subscription to National/International magazines/journals in engineering/technology/management
- Possibility of subscription facility on rent to degree students
- Availability of books on GATE, GRE, UPSC, MPSC, etc Competitive examinations.
- Tie ups with some libraries like Almeda
**Research Culture**

- Motivation for higher education and research
- Implementation of practical problems in campus institute and service industry (BT next to IT)
- Service oriented Research e.g. upgrading office, library, alumni data
- Guidance for writing a paper and patenting
- Regular discussions on latest published papers through Journal Club
- Research culture --- a culture of cooperation

**Projects**

- Technical support services for day to day life problems
- Creativity and Innovation of student and guide plays the role
- Eagerness to learn and to implement
- Initial survey methods and attempts
- Finance and Facilities
- Success to be measured by knowledge contribution than rewards and recognition
- Real problems with industry oriented projects.

**Conclusion**

- Emphasis on change of mindset through rigorous accountable training and continuous evaluation.
- Develop strong research culture.
- Develop Centre of Excellence for projects in thrust areas.
- Develop Corpus fund.
- Campus Institute interaction culture
- Strengthen industry-institute interaction.
- Virtual Classrooms.
- Active Alumni Associations.
- Corporate Social responsibilities.
- Fast changing Technology

**Success Mantra ---**

Honor and Shame

From no condition rise ---

**ACT** well thy part

There all the **HONOR** lies !!
The presentation addresses a very important area viz. maximizing productivity in VPM’s GOI (Science and Polytechnic). To start with the framework of the education system has been identified along with the key performance indicators.

**Exhibit 47: Education System**

- Applicant
- Learning Process
- Diploma / Degree Holder

- Intangible Inputs
  - Curriculum
  - Management
  - Teaching Method
- Tangible Inputs
  - Faculty
  - Support Staff
  - Funds / Capital
  - IT
  - Infrastructure

**Exhibit 48: Key Performance Indicators**

- Applicant
- Learning Process
- Diploma / Degree Holder

- Intangible Inputs
  - Admission Test Scores
  - Acceptance Level
  - No. of Applicants
- Tangible Inputs
  - Duration of Study
  - Drop out Level
  - Student Attendance
  - Staff Attendance
  - Student / Teacher Ratio
  - Budget per student

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☞ Dr. K. Paria, Assistant Professor, Department of Zoology, VPM’s B. N. Bandodkar College of Science
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**Group 4:**
How to Maximize Productivity in VPM’s Polytechnic and VPM’s B. N. Bandodkar College of Science?
The route to productivity is identified as creativity and innovation, soft skills, value chain analysis, kaizen, SETU interface and plan of action. The key parameters contributing to maximising productivity is presented below:

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Maximizing Productivity in VPM’s Polytechnic & B.N. Bandodkar College of Science

• Mindset
• Organizational climate
• Coordination
• Decision making ability
• Conflicts / difference of opinion
• Resource mobilization

Exhibit 49: Productivity Parameters
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Objectives

- To determine the factors that influence the productivity of educational institutes.
- To apply the techniques of productivity to improve the performance of the two educational institutes

What is Productivity?

- Productivity is defined as the efficient use of resources - Human, Capital, Material Energy, Information etc. in the Education System.

Output of the System

- No. of Degree/ diploma holders per year.
- Ratio of applicants enrolled to no. of students passing.
- Teacher-Student Ratio.
- Cost per student.

Alumni

- What Alumni do in life defines the stature of Institute?
- It indicates that Institute has provided a strong foundation, good education from dedicated faculty, strong value system of academic honesty, hard work and professionalism.
Creativity and Innovation in knowing the requirement of society

- Very new approach is required to survey the needs of society.
- To interact with all sections of society to understand the thrust behind the thinking of the society.
- To list the different subjects, topics, thinking lines, prejudices, concepts, and all the things important in understanding the society.

Creativity and Innovations in selecting and designing the courses for the society and the students

- The courses must be designed with the intention to get direct exposure to the factual things available in the society.
- Using different techniques to make the course material attractive and user friendly.
- It must be encouraging the student to think in innovative way and not in traditional way.

Creativity and Innovation: Exploring the possibility of hobby workshop

- Hobby workshop to be created in the campus and students wish to work to be allowed at nominal charges.
- The courses where exploration of these qualities are to be added to the syllabus as the compulsory module to every campus student.
- Hobby working must be regularised to create a methodology.

Creativity and Innovations applied to the problems of the society

- The organised working in the workshop must be provided with the guide, knowledge and accessories to lead them to the step of innovation.
- This organised force can be given the societal problems … will provide brilliant solutions.
- This is the process of innovation.

Creativity and innovation in presenting the work

- Now a days it is needed to publish your work on standard platform.
- Students must be directed to publish their work with proper guidance and innovative ways.{ audio visual presentations}
- It must be taken to the society.. To be appreciated ... and encouraged ... so that this system will create the students community.

Creativity and Innovation is a life long process

- Students of all age group must be involved
- There must not be any prequalification kept for entering.
- Fees must be reasonable
- The faculty and the researchers and innovators must meet periodically and discuss the progress and thinking of the solutions to different problems.
The development of human capital and the upgrading of the mentality and intellectual capacity of an Institute must be a priority if one needs to maximize the productivity of Educational institutes. Focusing on these areas will enable both the Institutes to raise their capacity for knowledge, creativity, and innovation, which are essential elements in the context of rising above and beyond excellence.

**What are soft skills?**

- Soft skills as incorporating aspects of generic skills which include non-academic skills such as leadership, teamwork, communication, and lifelong learning.
- Discussed briefly below is the two fold model of Development of Soft Skills among Teachers and Students of VPM’s Polytechnic and VPM’s B.N. Bandodkar College of Science which can be helpful in increasing productivity further leading to achieving above and beyond excellence.

- As teachers they should be able to convey their thoughts with clarity and confidence
- They should also be capable of going and using technology during presentations confidently.

- Leadership skill entails the ability to lead in various activities, Teachers should have the knowledge on basic leadership theories which will enable them to lead a project.

- Critical thinking and problem solving skills
- With this skill, teachers should be able to think in a critical, creative, innovative, and analytical manner which includes the ability to apply knowledge.

- Team work
- Team work involve the ability to work and cooperate with people from various social and cultural backgrounds so as to achieve a common goal.

- Lifelong learning and information management skills
- In acquiring skills and knowledge, teachers should be able to do self-regulated learning independently.
- They should also be receptive to new ideas and able to develop an inquiry mind.

- Development of Soft Skills among Teachers and Students of VPM’s Polytechnic and VPM’s B.N. Bandodkar College of Science
- Development of Soft Skills through stand-alone subject.
- Development of soft skills by embedding it in existing courses.
- Development of soft skills based on support programs.
- Soft skills can also be developed indirectly through support programs such as co-curricular activities.
- Activities such as debates, drama competitions, sports carnival which includes tally match, charity bazaar, and singing competitions are amongst many activities that could be carried out. Besides, increasing social interaction among students, leadership qualities, teamwork can be nurtured through such activities.

**Productivity**

**What is Productivity?**

Productivity is expressed or measured as a mathematical division of following parameters (functions).

\[
\text{Output / Input} = \text{Productivity}
\]
VALUE CHAIN ANALYSIS:
Innovations Already Existing For Optimum Utilization of Resources.

Available Resources

- Faculty members
- Non-teaching staff
- Infrastructure: 1. Laboratories
  2. Classrooms
  3. Library

Faculty Members

- Inter-departmental exchange
  Example: Chemistry-Biochemistry, Zoology-EVS, Botany-EVS, Microbiology-Biotechnology, Statistics-IT, IT-CS etc.
- School-College complex (VPM schools included)
  Example: Homi Bhaba Young Scientists, Insect/Butterfly identification.
- Skill development/value added courses are majorly taken up by Faculty.
  Example: Preparation of fish products, Jam, Jelly, Squashes; R-software, Bio-informatics.

Infrastructure

- Advanced Study Centre: Courses/EVS.
- Classrooms And IT labs made available for competitive exams.
- Consultancy services provided with the help of laboratories in the college: EIA.

KAIZEN: Resource Mobilization Within campus

- Wildlife camps/photography.
- Bird/plants/insects identification for non-science students.
- Butterfly Garden in the Campus.
Maximizing Productivity in VPM's Polytechnic & B.N. Bandodkar College of Science

Rising Above & Beyond Excellence

19th Oct, 2013

SETU- Interface

Associations & tie ups with:
• NGOs
• Professional Institutes
• Industries
• Corporate sectors

SETU: Plan of Action
(Teaching & Learning Process for Students, Teaching Staff & Non-Teaching staff)

To organize / introduce:
• Leadership & communication skill
• Soft skill
• Workshop / seminars
• Value education
• Vocational Courses
• Add on Courses
• Hands on training
• Bridge courses
• Orientation programme
• Refresher courses

SETU: Productivity

Measurable?
• Quality education
• Rational thinkers
• Competent workers
• Psychological
• Economical
• Social awareness

VISION: Imparting quality education in science
Mission: To mould students into rational thinkers, competent workers and socially aware citizens.

SETU: Productivity

Measurable:
• Higher academic growth
• Research areas
• Employability
• Entrepreneurship
• Alumni feedback

AS S O C IATIO N
PER S O NALITY DEVELO PMENT
MANAG EMENT
Dr. P. J. Lavakare obtained his Ph.D. degree from the University of Rochester, N.Y. (USA), in 1963 during a Fulbright fellowship to USA. After two decades of Space Research at the Tata Institute of Fundamental Research, Bombay, he secured a Diploma in Systems Management from the Bombay University. He later joined Ministry of Science and Technology, and Planning Commission, as an Advisor to Government of India and served, during 1986-90, as the Secretary of the Science Advisory Council to the Prime Minister. He was the Executive Director of the U.S. Educational Foundation in India, during 1992-99. As the Executive Vice President, he set up the Manipal Foundation. He is a Member of the Board of Governors of Mody Institute of Technology & Science (MITS) University in Rajasthan. He is the founder member of the Education Committee of the Federation of Indian Chambers of Commerce and Industry (FICCI). He presently specializes in International Education and in Management of Higher Education.
I enjoy going to an educational institution because I love to meet students and I miss them here. However, I know that instead of students, maybe I have to talk to audience who are stage higher. I have the teachers who are going to be here; because most of my talk is going to be dedicated towards teaching and role of teachers. At the same time I want to first of all congratulate the management and Dr. Bedekar, you, for taking this initiative and Dr. Murthy for going so extensively into detail and Madhuri for your efforts into organizing this. Truly speaking I enjoyed my morning session and I learnt a lot. I know I must have been a little hard to some of you by asking questions, unpleasant questions and so on. Nevertheless, as I said in the process of learning unless you are provoked, unless you are challenged, unless you are questioned, you don’t learn. So that’s the reason. Those of you who I may have put in an odd position by asking questions, pardon me for that. In the long run you will learn, that’s the way to really learn and teach.

The topic you have chosen for this evening, for the whole workshop you had with the faculty and then asked me to give a valedictory address on that. When Dr. Murthy wrote to me asking me whether I would be able to come and do that, frankly speaking I didn’t feel I have that qualification because I am still striving to understand as to what is excellence, I don’t know what is excellence. I am trying to learn and understand what excellence is all about. But then I said that’s the challenge, let me learn from this opportunity as to what is excellence. And this is what I did, lot of work, I did lot of research in trying to see what exactly I should talk, whom should I talk to, do I have anything new to tell to students and faculty and so on. So based on my little work and obviously Dr. Murthy whose name is Guru, so Guru and I had a long exchange; couple of emails exchanging what should I talk about and he gave
me lots of ideas. I didn’t accept all of them, but when I accepted some of them I enjoyed them, I could see that there was some interest, genuine interest in the institution here to try to interact and understand. Because very often I have got invitations and I am just asked to be there, you will be given a bouquet and you give a lecture and you go. But then that didn’t happen here. Therefore I said to Dr. Murthy, if I have to come here, I would like to participate in the morning session as well. And that’s what happened, I came here; I enjoyed my morning session, learnt a lot of new things from faculty members here. I believe in education, teaching and learning go hand in hand and the third triangle is that of research, of which I have lot of experience. I didn’t have as much experience in teaching as many of you have. But I think as part of research you do learn. As Dr. Bedekar correctly said, ‘to communicate’ – that is very important; to articulate and to bring logic, these are the elements what a scientist believes in. Thus, I thought I have some credentials to talk about the subject. For that matter, I tell you when I went into detail I got really foxed. I didn’t know what to talk about. Hence I said, well let me look at this institution. We were told communication should be right, I want to make sure that people see the things. I said, let me look at this institute, what does it stand for and there’s your motto. And I got all my answers except for one which I will tell, which one is that. Look at the words, ‘Prajvalito Gyanmaya Pradeepa’ and what is your theme today? You are talking about excellence through knowledge, so if we look at Pradeepa it’s the knowledge; Gyanmaya that’s wisdom; and Prajvalito that’s where there is excellence, that’s where you shine! So I had to do some research to understand your institute’s motto. I don’t know how many of you teachers do that; I would suggest to you to take that to the students. And as Dr. Bedekar mentioned I also get very worried that very often we talk about things from the West, whatever they have done we talk about that and forget... I don’t say ‘don’t take from the west’, certainly by all means whatever is good, from
wherever it comes take it, but don't forget your roots. No matter what you do, whether you like it or not your roots remain with you forever and ever. I mean it’s sometimes very amusing to see our Indians going to US and then come back and then talk about all high floating things about what they have done there and how many cars they have and how many houses they have but finally they come back to India and understand that they are Indians and then they start talking about their Indian roots. I tell you take this message to the students that we all have our roots in India with our culture deeply rooted in our country. Knowingly or unknowingly they are there with us forever and I think we should make best use of it. Having looked at your motto and understood what this whole thing stands for, I picked up a topic. Basically I always like to address my thoughts towards students and you people are going to help me to take them to the students. Teachers play the role of developing young students to become ‘role-models’ and if you use your own word excellence. And incidentally Dr. Bedekar and Dr. Murthy you have to teach me what the words ‘Beyond Excellence’ mean - to me as a scientist, excellence is something very difficult to reach; it’s like an infinity. If that is infinity then what is ‘Beyond Infinity’? To mathematicians and scientists there is nothing beyond infinity. I was therefore very concerned that I have to talk about something which the students’ should aspire for. And today’s world, being what it is, the globalised world; our students have to face the world, on the outside they have to go out of the country; even within the country they have to face outsiders, tough competition, international competition, competition in business. Everywhere there is competition and our students have to be excellent to become participative in this global struggle for excellence. Therefore, I thought what we have to do, as teachers and management institutions, is to develop global citizens. By that I mean, a student who can make his / her mark anywhere in the world, not just in Bombay or Delhi or in India, but anywhere in the world. Our students should be such that they will recognise themselves as global citizens and that’s our
job to develop. In doing that, I don’t want you to forget and remind them of what I was talking about – our cultural ethos and Indian heritage. And it’s not something that we have to artificially bring in. Dr. Bedekar himself mentioned few examples of the heritage we had and also that have lost them. We didn’t stick to those and I still remember after independence we didn’t have a choice whether to accept our own system or take the British system. And we readily took the British system and started the University Grants Commission (UGC) and all those kind of things. However, Britain went ahead and made many changes. Yet, we are still in the UGC and the old system. What I am trying to say is that while our students should be accepted all over the world please remind them that there is something wonderful in our own culture and that is done basically through the spirit of enquiry and global conscientiousness. Today whether we like it or not students have to be aware of the world, because they are the ones who are going to lead the country and if they meet people coming from outside, they are going to be our future ambassadors. They have to be very globally conscious and when we teach our students whether we teach them history or geography try to make sure that they are made globally conscious and not just locally conscious and in that process make sure that it is excellence that you have given them that is to say the best! And that’s what I am going to say that all of us have this responsibility of bringing this spirit of inquiry, bringing in this global consciousness and excellence in our education system, so that our students who are going to be part of it become global citizens with Indian ethos – firmly rooted in local soil with ‘global hearts and local peripherals’.

Now I did mention little bit about why global citizens, but I just want to give a little background about why and pretty soon even in your institution internationalization of education shall unfold itself. We should collaborate with foreign universities. And I would like that to happen, but do it with a thorough study; what does it mean to be internationalised, to be globalised.
And before that I want to trace a little history of how this has happened. If you look at our world, the real globalization started in 1945 after the world war. It was a political globalization. All the countries realized that it was not good. We have to have peace in this world, not that we have it today, but at least there was an attempt and the United Nations was set up 1945 and thank God there has been no world war after that. So there was some achievement through this political globalization. Once peace was in the air, economic development was the order of the day. And economic globalisation started in 1995 with the setting up of the World Trade Organisation (WTO). With economic growth, liberalisation was the mantra at that time. And then fortunately or unfortunately education was branded as an industry. Thus, education is an industry under the definition of the WTO or the GATT agreement. It says that the education should be treated like an industry. Now I would like all of you, not just scientists, teachers or economists, to think what it means to view education as an industry. Please ponder over this. I wish you could arrange a seminar amongst yourselves what does it mean for education to be regarded as an industry; and this particularly for your institution being a private institution. You must understand what are your obligations and what are the goals you have to achieve in the concept of excellence treating education as an industry. Because at one time in India we used to think industry is something bad, industry is something which means making money and therefore when the world said that education is industry, in India there was a lot of turmoil. Even many people today don’t accept education as an industry and not every industry has to be profit making; there could be ‘not for profit’ industry. What I am saying is to be operated like an activity which is beneficial to all, beneficial to humanity at large. Thus, that was the second stage of globalization viz. economic globalization. And now we are in the third stage of globalization i.e. education. We are therefore presently in the stage of globalization of education. Unfortunately, in India, as usual we are very slow. There is no need for anyone to jump onto the
bandwagon. However, it is very necessary to understand what it means. We have not yet done it. I have been involved in two to three committees, UGC, Ministry of Human Resource Development (MHRD) and all that. They ask you to do lot of work, you write reports, they say ‘wonderful, wonderful’, nothing happens after that. The concept of internationalization of higher education has been going on now for two plans. I remember we wrote the first committee report - nothing happened either in the tenth plan or even in the eleventh plan. Perhaps, something is happening in the twelfth plan.

Who then is a global citizen and what do we mean by that? Let me present some specific thoughts not just qualification, but definition and some specific concepts as to what it means to be a global citizen. A global citizen is a person who thinks beyond national borders not necessarily for the interest of the world, but thinks about other countries as to what is happening. If something happens in Japan, something happens in Indonesia the person gets worried, or rather is interested than worried, it’s a curiosity, ‘what’s happening worldover’. A person who thinks beyond national borders to me is a global citizen.

The second characteristic of a global citizen is one who respects and understands other cultures. It’s not enough to know the geography of Japan or Indonesia or China. A global citizen has to understand why the Chinese or Indonesians think the way they do. If they think differently that doesn’t mean they are wrong compared to what we think. It takes lot of efforts to understand the other view or way of life and it is not enough to read books, it is necessary to meet people, talk to them, be prepared to disagree with them, to accept that they will criticize. Therefore unless a person respects and understands other cultures, the question of global citizenship does not arise. That’s the second point. The third characteristic of a global citizen is one who is in appreciation of human diversity. We always say in India we are very
proud of our ‘unity in diversity’. I hope that within India we have that unity. In fact we don’t have that unity. We keep on talking of caste, sub-caste, religion, Hindu, Muslim and all that. So we don’t yet have this idea that we respect or we appreciate that human diversity. I am sure that biologists and zoologists talk about diversity and you appreciate what it is. And some of your slides brought that out today. I sometimes get very upset with our own Indian students, when they look at students from North-East, they don’t even know that they are Indians. They keep on saying that they are Chinese. They ask the North East persons: Which country did you come from? This is not a desirable attribute in our students. Next we believe that the world is one family, inter-dependent family, everybody cares for the other, if one person is in trouble the other person goes and helps. And that is what global citizens should understand. We have in our scriptures, the thought ‘Vasudeva kutumbakam’ which means one world is one family. However, we are not really practicing the thought and I would like our students to know the value of that saying ‘Vasudeva kutumbakam’ and what that means. Next a global citizen is one who is well informed about the political, geographical uniqueness of the countries of the world. This is where we come to nitty-gritty of teaching. Making them learn about other countries. It’s not enough that teacher’s simply say what’s happening in India, but I would like the teachers, in spite of it not being part of the syllabus, to sensitise them when you talk about something in India, sensitise them about what’s happening in other countries, whether it is Pakistan or USA. Educate them with concepts, ideas, happenings, social developments in other countries. Now we have done some study on African students in India. You’d be shocked to hear over the last five years number of African students coming to India has rapidly decreased, very seriously decreased. When I talk to some African students in Pune, I tried to find out what they think of declining population of African Students in India. Indians do not accept Africans because of their dark skin. We are still very sensitive to Africans and this is certainly not the quality of a
global citizen. With these few definitions, you perhaps understand what one is trying to communicate. What should our young students do in the future when I say they should be global citizens.

In India, today, government officials and the ministers too have been talking a lot about the ‘demographic dividend’. Somebody used the same expression earlier. In India we have more than 65% of Indians who are less than 35 years of age. And therefore the whole world’s manpower eventually is going to be, can be fed by Indians, Indian students, Indian young people. And Kapil Sibal made a big statement, I wish he thought about it in more detail before making it, but now that he has done, I have a right to quote him and also criticize him. What did he say? “Our talent pool has clearly described its prowess by creating a successful IT and services industry that is the envy of the world. Because of the large reservoir of talented youth that is available in the country, around 1000 of the top global companies have established their R&D, technical and development centres in India.” Lot of foreign companies have set up their R&D units in India, that is correct. “And they are employing around 200,000 scientists and engineers.” I don’t know the number, but I don’t doubt it, but anyways it is a fairly large number. “In almost all knowledge sectors high tech companies employ young Indian innovators whose ideas are taking the world by storm.” Factually qualitatively correct, numbers can be debated. Finally, he says that we have to ensure that our talent pool in the knowledge arena lives up to the brand equity which is now looked upon globally with awe and respect. Now one has to look at that kind of a statement.

Then, we hear very contradictory statements. McKinsey Report of 2005 which disturbed many educational institutions said currently only about 25% of technical graduates and 10 to 15% of general college graduates and perhaps all of you know that more than 40 to 50% of our graduates belong to this
general college, arts and science (not even commerce) are unemployable. For employment they are not suitable. If we are saying that only 25% are acceptable and 75% are not acceptable by our own people then how do we say that this 75% will be accepted by outside people? I think unless we put our house in order, I think it’s not fair to make such claims which the minister has made. We have to be very careful in press meetings and shouting about our demographic dividend. Yes we have a demographic dividend. I am sure all of you have met some young bright talented students and undoubtedly we are proud of them. Our problem is that they are very small, it is only the cream or may be crème de la crème and we have a big task to get the rest of them to that level.

Another very interesting statement... I do some work for GE Company and in the year 2000, the former GE CEO Jack Welch, came to visit India. They were looking for setting up a R&D centre world over. They set up one in Brazil have one in China, one in Germany, one in US where they started. When Jack Welch came to India he interacted with lot of young people and he was surprised to see talent in India; this is again the cream or may be crème de la crème and I am not referring only to IIT, mind you. Invariably people say that talent means only IIT. No I don’t agree with that at all. Talent is all over, even in your own institutions I am sure. Now Jack Welch made a statement ‘India is a developing country with developed talent’. Once again we grabbed on the statement, ‘Oh! We have developed talent’. However, he was very very purposeful, he came, he knew, he could locate talent here, rather than getting the talent back in US. It’s like the story of Mohammed going to the mountain rather than the mountain going to Mohammed. Rather than taking them all to USA why not set up a R&D Centre in India. He sure enough set up his centre in Bangalore and it’s one of the largest of all GE R&D centres. One of the largest ones, even larger than the one in US. They recognise where the talent is and that is where India has a promise and that is why all of you have a
responsibility that this talent really flourishes and becomes globally acceptable everywhere.

After the McKinsey Report of 2005 our Prime Minister woke up and my good friend Sam Pitroda told me we have a problem in India and Prime Minster has asked me to set up and to a committee to look at Indian higher education system. He very quickly made a statement, made a preliminary survey and wrote to the Prime Minister, that we have a problem in our higher education system. And Prime Minister read that statement and said this “Our University system is in many parts in a state of disrepair. Higher education enrollment has been abysmally low. Almost two thirds of our Universities and 90% of our colleges are rated as below average on quality parameters. I am concerned that in many states, University appointments including that of the vice-chancellors have been politicized and have become subject to caste and communal considerations and there are complaints of favoritism and corruption.” He says all that but does nothing about it. That’s a problem. With this kind of admission by our own Prime Minister, telling that in India we have a problem in our higher education, how do we achieve this excellence that we talk about in this seminar? Sam Pitroda was asked to prepare and I urge all of you to read the report. If you talk of polytechnic, you talk of vocation education please look at that report, have seminars, debate on it, find out what’s right what’s wrong, find out if there is anything wrong, look at the report objectively. And what did that report say basically: same thing that Prime Minister was talking about that we don’t have many institutions, so expansion. Then the theme of your seminar, Sam Pitroda reported that the august National Knowledge Commission said, “Our education needs an overhaul. We have a problem.” And therefore second aspect should be excellence. And third one was equity or inclusion. Not everybody is able to access higher education. Now I want to touch upon this last quality. How the National Knowledge Commission Report completely
avoided what Dr. Bedekar was telling me the whole concept of schedule caste, schedule tribe reservation and all that which our government insists on. Please read National Knowledge Commission Report. It doesn’t mention that at all. And when the Committee Report talks of inclusion, they are saying in our society there are certain class of people who are deprived. Deprived of various aspects for various reasons, deprived and they don’t get education. This is what the committee has reported. However, they didn’t complete their work. They were perhaps careful. It was a politically sensitive issue, to not to refer to schedule caste and scheduled tribe, but to talk of deprived community is something that is not acceptable. They therefore stopped there and said we would like the government to come up with what they would call deprivation parameters. Before you reserve don’t go by certificates of which class, schedule class, schedule tribe etc., get an index of deprivation, who is deprived, whether it could be social deprivation, economic deprivation, geographical deprivation or whatever it is - develop these parameters. And government should use these parameters to come up with reservation. So these are the three elements viz. expansion, excellence, equity and inclusion which came up in the National Knowledge Commission Report. And I think we quickly jumped on to the first one.

Expansion; that we did, we are very good. I asked Sam after the report was over, “Sam, nothing is happening, what’s the outcome, what have we done?” He said, “Only one good thing has happened, lot of money has been given by the government to open up new institutions and I think it stopped there.” If we look at the graph of the number of Universities that have been growing over the years and every now and then, we were discussing the Universities that get closed. It’s very difficult to close a University; they will only keep on growing. So today the number, look at after 1990 or 2000, around the time the report came out, a little before that, but soon after that, it shot up and now we have more than 600; I think today’s
number is 650 perhaps, I don’t know 33,000 colleges and 634 universities are there in this country. I am not distinguishing between private, governments, deemed, not deemed and so on and so forth. That’s the number of Universities we have in our country. So expansion we have agreed and addressed it quickly.

It’s not just that we are only expanding, the whole world is expanding. And today our young people are very keen are very very sharp. They know they want to go to the best place. That’s why we are all talking about; we have to give them excellence. If we don’t give them excellence here, and if they don’t give them excellence here, there are going to go out. And it’s not only in India, it’s happening in many countries, particularly Africa are doing a lot more than what we are doing in India. If you look at the number of students, it is growing, those who have left their country studying somewhere else. We don’t know how many will come back, it will depend upon the country, it depends upon the domestic situation. Depends upon the hosting country which will give the visa and all that. The fact is our young people who we are targeting for excellence are really today wanting to go out. They are like free birds, they are like sea gulls, they wanted to go out. Why? And today the number is about four million students outside their country looking for jobs, not looking for jobs, and looking for places to study because they are not satisfied within their own country what they are getting. Today India’s situation is the same. About 200,000 Indian students are studying outside. In US alone about 100,000 students are studying. We don’t know how many will come back. I am not right now concerned about that. My concern is that are we giving our young students the opportunity to get the best of institutions and that’s what they are doing today. The demand for higher education has risen very rapidly and the competition amongst Universities to attract international students is going on. Now that’s where the marketing comes, that’s where the industry comes. All these questions that you read today
about world class University which is now being picked up like this. Everybody talks of world class University. This concept emerged only because competition started amongst various international Universities to attract students. I am sure many of you know the kind of competition that is going on amongst countries like UK, USA and even China and other countries to attract students. Cut-throat competition, ethical practices, unethical practices everything goes on. Today therefore there is a system, this is where I mentioned at the top China when they, their students are looking for the best Universities a Chinese University, it’s a complicated name, Jo Kyung, the faculty got together and said we will decide what is a world class University and they took parameters which were not acceptable to many today but still took it as one of the parameters. So the moment they did, then British people did, then another group in Europe did it. So now there are about 3 to 4 rating agencies which are now trying to see which are world class Universities. The problem is that for none of them our Universities are unfit, whether we use the Chinese system or the British system or the European system. We are nowhere in the first 200. The question is everybody is looking for the world class University, that they want to go to the best of Universities, so we should develop world class Universities. Now that’s where the ranking game started, I am 199 and you are so and so and forth. ‘The paradox of world class Universities’ written by a good friend Philip Altbach; who says, ‘Everyone wants one world class University, no one knows what it is and no one knows how to get one but everybody is saying world class, we have to become world class. Nobody has yet understood what is world class.’ World Class for country X may not be World Class for country Y. So let’s not get carried away by this World Class University too much. I am not saying don’t respect. Yes, you have to evaluate, get parameters, be quantitative; do all that, absolutely necessary. However don’t try to fit in yourself somewhere or the other and feel bad about it if you are not there.
It is here where I come to the Indian ethos. Historically speaking, India was the first country which had a university and that was the Nalanda University\(^1\) which is now in Bihar and we had this wonderful heritage. However, we have forgotten all about it. After independence we never thought in term of bringing up Universities which will be based on Indian ethos on the lines of like Nalanda University. Now I am told government is suddenly trying to set up a Nalanda University in a place somewhere close to this site. I have a dream to go and visit this University site, the leftovers of that, but I am not yet able to do that. However, that may be another study opportunity for you to study what was so great about Nalanda. You people are all scholars, teachers and you have to excite our students about Nalanda, what was good about it. Please do study about Nalanda, there’s a lot to learn from that.

A world class university, the Indian ethos we always thought without calling it world class, Nalanda was a place where all people, scholars from all over the world came. That’s why we talk about ‘\textit{Vasudeva Kutumbakam}’; the world as one family and come and study in India. Attracted, people came and rushed to us.

Today nobody wants to come to us. African students as I told you are longer coming to us, they are going away. Thus, there is something wrong with us. We have forgotten our heritage and our spirit. We have also left behind our spirit of excellence. There was something inbuilt and as Dr. Murthy and Dr. Bhindre also told, it should come from the heart from within, not something from the outside that one says you’re a world class or you are excellent. Excellence comes from within. As long as you feel you are doing your best; do not stop until you are doing your very best. That’s the only way to get

\(^1\)\textit{Nalanda University} – Nalanda is a word known across the world and for centuries. It stands for a university which attracted students and scholars from across Asia and even farther away. It was a centre of excellence not only for Buddhist studies and philosophy but for medicine and mathematics as well. After teaching thousands of students for centuries, Nalanda ceased its existence just as universities were opening up in Bologana, Paris and Oxford at the beginning of the second millennium CE.
excellence, you can't get certificate from someone else that you are excellent and so on. Therefore, we had a world class university and have forgotten its ethos. We need to study, remind ourselves as to what was Nalanda, maybe have a seminar, talk to students, give them a project and maybe study what was so great about Nalanda. And communicate that excitement, that enthusiasm for them to be a global citizens with India ethos.

What do we mean by excellence in a particular system. Thus, in higher education, what does it mean by excellent students, excellent teachers keeping in mind the rich heritage of our excellent institutions viz. Nalanda. In the Upanishads there is the story of Nachiketta whose father was doing a Yagna. He was just giving away the cattle and everything else animate and inanimate. He gave away his son also; he was upset with his son. So his son was to be sent to Yama. Afterwards the father realizes, “What have I done, I have told my son to go to Yama; this is something which I should not have done.” He says, “Son you need not go.” Son says, “No way, you have given the promise, I am going to go to Yama.” He does go to Yama. Look at his thinking, curiosity and initiative. Nachiketta gives hell to Yama literally asking him hundreds of questions and Yama is not able to answer those, but like a good teacher Yama doesn’t get upset, he keeps on trying, some of the answers he doesn’t have, but he keeps on diverting, “I’ll give you this, I’ll give you that, don’t ask me this question”. Nachiketta says, “No, I want to understand this.” And I want to know what the final answer is. Nachiketa had a spirit of enquiry and curiosity and that is what I wish to emphasise and without fear. That is the way it should be for teachers and students striving to RAABE. That’s the spirit of Indian Ethos. The same thing is felt today when I talk to students. I do spend a lot of time; I lived with students for a workshop. Stayed with them in hostels and travelled in bus together. It is amazing the kind of return you get from them. Each time my friends meet me, they say I look younger. Yes, I tell them, I was with the young students for a week. I can
tell you this, the young students they enliven your life so much. However, you have to practice in their language, don’t start preaching to them. The moment you start preaching then they will run away from you and today’s students I am very sorry to say that they know more than what you do. I am not saying everyone. Say on an average good students today are more informed, perhaps more relevant to science I don’t know about other areas. They may not be mature, but they have more information than what you have. And therefore if you try to tell them in the routine way giving lectures and lecture on facts, facts, facts, reading your old notes of ten years, fifteen years and the same stories they will get bored. I talk to many of my young friends and this is what happens. They say teachers talk about things which are already there in the book. Teachers read from the books and I have read them already, I have gone to the Internet, I have studied this and that too. They are so eager to learn and the teachers are not able to come up to their expectations. Once again I don’t want to generalize. Since we are looking at excellence, we are looking at the best and that gives us standards where exactly should we pitch our efforts and challenge ourselves. \textit{“Can I satisfy the best of students.”} And if you do, then that’s where your excellence will come from. That’s where the teachers come from. Look at the amount of emphasis we have given to the teachers in our tradition. And without saying the whole thing we say, \textit{“Guru Sakshaat Parahbramha”} and we talk of Guru as the person who is top most who is even better than management and today I very often blame the management. Today you have enslaved your Gurus. You have enslaved someone; your Gurus are not able to talk to you, because you have scared them. I am not talking of this institution, I can’t talk like this; but I have seen a number of institutions where to students teachers say, \textit{“No, I can’t talk about this”}. And the whole concept of curiosity, spirit of inquiry, understanding the other person, understanding the differences, trying to learn from the students etc. etc. is all hidden with the fear if I ask this question I will be branded as bad not as good. Therefore the whole question of the importance of Guru and
Guru Parahbramha as I said is something which has to be revived and it is there within us, if only you can simply revisit it in the modern context, see what is expected, I think we will be there. Then excellent institutions, like Nalanda will reemerge. I would leave this as a case study for you. I have a bad habit of giving tasks to all my friends and students and people who I meet. So please do that, look at that and see why Nalanda was excellent. Is it still relevant? It may not be relevant today, but you find out you will get an answer. Don’t depend on someone else. You should satisfy yourself, that’s the main thing, that’s the way of learning. However, we have forgotten the ethos of Nalanda. We look at Harvard, we look at Cambridge, at Oxford and so on. They are good and we should look at them appropriately, don’t feel as if I am only denigrating them and glorifying the ethos and pride of our nation, of course, not. But I don’t want you to forget what we had in the past and build up on that and pick up the best from the concepts, because I know some of the concepts are not relevant today, but basic elements are still there and should be viable and therefore valid.

Now what does excellence of the student mean? I spoke about the spirit of enquiry through the example of Nachiketa; hardwork, patience and perseverance. I will give you one mere example, I was somewhere in Belapse in US. I was with a young group of students and a Nobel Laureate was there. I was listening to the conversation. Young students, meeting a Nobel Laureate was great for them and finally the inevitable question comes, “Please tell us the secret of your getting the Nobel Prize.” And he simply said three words. “Don’t give up”. Just three words, “Don’t give up.” How many of us give up easily? Very easily? And he says don’t give up. That’s what I call spirit of enquiry, perseverance and patience. We heard a lot about perseverance and patience from you. “The crane stands up on one leg.” That’s the skill of perseverance.
The next issue is problem solving skills. Look at the real example - today, many industrialists and recruiters that I have talked to say, "**yes, these are all good marks, but I give them a simple problem and they can’t solve. They are so narrow in their thinking. Life today is not narrow, life is multidisciplinary.**" A student of Chemistry says that’s a problem in biology or physics. Knowledge in real is not compartmentalized. In fact I complemented your institution today for the first time. I see many multi-faculty institutions with teachers from different disciplines. There are many institutions who are so compartmentalized; faculty of law won’t talk to management, faculty of engineering won’t talk to faculty of humanities and so on. They have separate buildings, because earlier they have separate colleges and they continue to remain as separate entities. The faculty don’t attend each other’s lectures. I give a lecture at one of these universities and the faculty of humanities said they’ll arrange my lecture separately. People are not willing to exchange ideas with each other, not willing to openly talk. However, I was very very happy and wanted to congratulate you for putting up teams and I come to the next section there, for putting up teams which are interdisciplinary to each others’ institutions. Problem-solving skills; if I ask a student which discipline, this is, can you trace which discipline this is, they cannot, because all disciplines are present viz. physics, chemistry, marketing, mechanical engineering, electrical engineering et al. Suppose a student is being asked a question by a company which makes a mobile as to which discipline is involved in the making of a mobile. His answer is I studied only computer science. They get upset because they have no problem solving skills at all. They are so narrow in their thinking. And when I organize these workshops for students very often, I purposely break up them into teams and each team is a multidisciplinary team. And promptly I get an email from them, sir you have put me in a chemistry group, but I am not a chemistry student, I am a chemical engineer. These kinds of mindset are so bad, that they are not able to solve problems which are real life problems. Therefore I urge you to develop these skills and
attempt to break these barriers and silos of discipline and knowledge. I think problem solving skills do not come from any single discipline. They are the offshoot of many disciplines and that’s what the excellent students (and teachers too) would have to learn viz. a multi-disciplinary approach. The next is communication skills. Today again Dr. Bedekar mentioned about it. It’s very important to be able to communicate what you have. Students just can’t communicate. They lose out on jobs, because they can’t communicate. There are some who keep on talking, as we say “gas”, talk something which is not correct and the real person understands he is just talking out of his hat. Therefore communication skills are important. Social skills are equally important. Last but not the least is the spirit of team work. People don’t like to work, in India I have seen this, people don’t like to work in teams. Everybody’s attitude is each one for himself or herself. The spirit of teamwork - what does it mean - more of we, less of me, Students when they sit together in a team, each one is only trying to tell the others what he knows or she knows and I stop them. In a team everyone should get the chance to talk, to learn from others. Yet in a team there are some who keep on talking, don’t allow the other person to talk. In fact in the process we are not only suppressing the initiatives of the person who doesn’t talk, but we are bringing in inferiority complex in them. Excellence can come up only if we allow the best of the ideas to be floated across the cross section of the entire team network. Then the best idea will emerge and can be picked up for further processing and eventual implementation.

Next, I come to teachers. What is excellence in teachers? I don’t know how many of you are able to read that. I will read today. I firmly believe that in India we are only teaching we are not making them learn; we are only teaching, teaching, teaching all the time. My broad advice on excellence to teachers is “Don’t teach them, make them learn.” And that comes by encouraging them to ask questions. We don’t encourage them to ask questions
at all. Don’t disturb. I am giving a talk now, no disturbing. After the lecture we will see and then the lecturer runs away. I am saying these are the kind of things that are actually happening. I am asking very pointed questions. How much is the teacher-student contact hours? Everybody basically answers contact hours as lectures that you give. Afterwards one hour is available, anybody can come and see me, but I don’t know how often that happens and how sincerely that happens. Albert Einstein says it’s not enough to teach a man specialty which can make man at best kind of a useful machine not a harmoniously developed personality. It is necessary to understand what Chanakya said, The teacher starts with implicit belief that teaching in itself has an inbuilt facet of learning and further that “he has as much to learn from the process of communication as the people himself.” This is what Chanakaya had said. And this is what Upanishads says too. “Treat your kid like a darling for the first five years, K.G, lower K.G. or upper K.G. For the next five years scold them, by the time they turn sixteen, treat them like a friend.” “By the time they are sixteen, they should be your friend, you should communicate with them openly, without authority. Your grown up children are your best friends.” Your students at the College level are really your best friends. During our times our teachers used to spend much more time with us. I still remember our teachers teaching us songs, going on a picnic, eating food together, going in a bus together, talking about so many things. One of our professors used to take us on a hike. And when we go on a hike, he would not simply say, walk ten miles or seven miles. He would say, in this village, look around. Where do you think water will be provided to them. Now these are the things we learnt from our teachers. Today I am sorry to say teachers generally don’t take students as friends. They don’t spend enough time with them, because everybody is busy, student is busy, teachers are busy, everybody is busy and that’s not a good thing for being excellent. R.L. Johnson said, Communicating well with children and young people is a real talent, it’s not easy, it requires best of the efforts, patience and a key part of
the success that challenges young minds and unlocks potential and those who truly connect with their young students are rarely forgotten. I still (now I am almost so) remember my teacher who used to give me all sorts of books to read. Finally innovate, don’t imitate, that’s something which I again want to bring in here. That’s the kind of Guru, Tasmay shri guruvay namah this is the one guru who will not imitate but innovate. Let me give examples, I want to give you two examples. Harvard university students came to India, students and faculty together to study a unique case study which was happening nowhere but in Bombay, the Bombay Dabbawalas. Harvard university students and professors had to come here in our backyard to make a case study on our problems. How many of our IIMs or other management institutes have done any study of our backyard. I am very sure that the Harvard study of Dabbawallahs will now be spoken about in all our institutions. That’s not one, there’s another case, more recent, the Kumbh Mela which is organized by the State Government. How is it organized, Harvard people are more curious to find out and they make a case study of how Kumbh Mela is organized. They break up the system, organisation, who participates, where it is organized and all related details. We don’t do that. How many of our internal problems are wonderful case studies which we ourselves look at. Unless we start looking at our own problems and not simply imitate what somebody else. Excellence stems from innovation rather than imitation. And in every aspect of your activity please see, I am not at all denigrating the idea of learning from others. You can also sometimes look at what others are doing, try to understand that, certainly do that, but don’t depend only on that. Try to apply your own mind to your own problems.

Any institution is excellent if that particular University has a star. There should be a star in that institution. Everybody in the world knows, Oh! That person he is in that University! So your University should be, whether you like it or not known by people who do work, whether it will be excellent research,
excellent teaching, Nobel Prize whatever it is. A University is very often considered excellent, if there are stars or there is a star programme. Oh! If you want to do management, go to this place! So you should try to strive towards that, people will look at your stars and will look at your programmes which are star programmes. It has a number of research stars and world leaders. That’s what I was referring to. Such stardom attracts the best staff and most able students from international markets. Suppose a professor is brought in by the management who is so great and he is given an extra salary. How would all of you react? Oh! that’s not accepted... Everybody should be given the same salary, everybody should be given the same increment and all that. Excellence doesn’t come by uniformity. Excellence comes by uniqueness. Management should have the confidence that if we bring in a star, rest of them will accept. I will give you another example of ‘innovation and imitation’. All of you would have read recently there were two Nobel Laureates in economics. Both of them are 80. Professors in a University. Now, one approach would be to say, “My God!! At 80, they are so innovative” and the other approach would be, “that University appoints a professor even when he is 80”. Now look at these two different ways of looking at the same problem. I feel India will ask Oh! If Harvard can appoint a professor at 80 and he can actually work, why should we limit ourself to 60 to 65 we should extend our age limit to 80. While the other person says, “My God! 80 and today I am 55 and I am not even innovative and this person at 80 is so innovative.” The next important aspect is contribution to society. I heard very good things about the same in today’s presentations that our institution should contribute towards the society. Such contributions cannot be initiated because somebody else is doing it. Please do not get carried away by the world every time. Think what we can do ourselves in our own institutions.

What is excellence in governance, because many institutions are being criticised for absence of excellence in governance. I think integrity in
appointments at all levels that is a good governance. Strong leadership and management skills, not at all levels of responsibilities it’s not management or the director or the head or the principal. Each one of you is a leader and that’s what I say Gururdevo. You are all Gurudevs and you have to make use of that quality of yours, that respect which is given to you by society, that’s where the excellence will come. Strong leadership and management skills is necessary to monitor the quality of teaching and learning.

Improvement in research quality. Very difficult thing. It is easy to say but you have to struggle hard, patience, continue to work and work and work before you can get that.

A competent administration. A robust and transparent financial system. Then it is a good governance. Strong human resources processes for performance appraisal and development. Effective student support arrangements.

In conclusion, I feel very strongly about higher education being globalised; India has to become internationally competitive. You can’t be away from that. The concept of world class university has come to stay. Bring excellence in our education system. You set your own standards. However when you set those standards, they are the best standards, and don’t worry what others talk about it. Focus on excellence in our students, teachers and institutions. Indian culture has its ethos, let us recall and learn from our past as we step into the future. We have a tremendous history.

And I end up with Aristotle, some of you used this definition and we try to translate it into our saying ‘sa sa vidya ya vimuktye’ it is that knowledge, it is that Vidya which liberates you; if you want to call it beyond excellence, yes, that is education, which liberates you. Not bound down by petty little things but you should think big, think of excellence. That’s the kind of Vidya that you
have to look for. It is this learning that will liberate us beyond excellence. But what did Aristotle say. And I’ll end up with that. And that is the crux. I think one of your faculty members did use this definition. He says, “We are what we repeatedly do. Excellence then is not an act” “Excellence is not an act, but a habit.”
**Developing Global Citizens**

**with**

**Indian Ethos**

_A Spirit of Enquiry, Global Consciousness & Excellence in Indian Higher Education_

_by_ P.J. Lavakare

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**Why Global Citizens?**

Higher Education has become Globalized

- **Political Globalization after World War II -1945**
  - setting up of UN – _No World War III so far......_

- **Economic Globalization – 1995 setting up of WTO**
  - _Economic Growth through Liberalization;_ 
  - _Education is an “Industry”_

- **Now Globalization of Higher Education –**
  - _Students are crossing national borders and becoming Global citizens_

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**Who is a Global Citizen?**

- Who thinks beyond national borders
- Who understands and respects other cultures
- Who appreciates the human diversity
- Who believes that the world is one family
- Who is well informed about the political and geographical uniqueness of the countries of the world
- Who welcomes and respects a foreign guest

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**Why should India produce Global Citizens?**

_The advantage of a demographic dividend_ — Statement by Mr. Kapil Sibal (2012)

“Our talent pool has clearly described its prowess by creating a successful IT and services industry that is the envy of the world ... (Because) of the large reservoir of talented youth that is available in the country, around 1,000 of the top global companies have established their R&D, technical and development centres in India, employing over 200,000 scientists and engineers, in almost all knowledge sectors. ... High-tech companies employ young Indian innovators whose ideas are taking the world by storm. ... We have to ensure that our talent pool in the knowledge arena lives up to the 'Brand India' equity which is now looked up globally with awe and respect.”

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**Perceptions about Indian Higher Education**

- ‘India is a developing country with a developed talent’

  Jack Welch, _former CEO, General Electric Co. 2000_

  - Currently only about 25% of technical graduates and 10-15% of general college graduates are suitable for employment in the offshore IT and BPO industries respectively

  McKinsey report of 2005
A quote from Prime Minister Manmohan Singh (2007)

“Our University System is, in many parts, in a state of disrepair.....higher education enrolments are abysmally low, almost two-third of our universities and 90 per cent of our colleges are rated as below average on quality parameters.....I am concerned that in many states university appointments, including that of Vice Chancellors, have been politicized and have become subject to caste and communal considerations and there are complaints of favouritism and corruption”

Report of the National Knowledge Commission - Education needs an overhaul

Recommendations on Education Reforms

• Expansion
• Excellence
• Equity / Inclusion

The Global Education Scene

➢ The Demand for Higher Education rises rapidly – Competition amongst universities to attract international students
➢ Students want to go the best of Universities
➢ Demand for World Class Universities

--- The Ranking game

The Paradox of the ‘World Class’ University!

“everyone wants one, no one knows what it is, and no one knows how to get one”

(Altbach 2004).
A world class university
*The Indian Ethos*

// वसुधैव कुटूर्कम् //
*The World is one family*

Excellence in Higher Education
*Indian Ethos in Global Context*

- **Excellent Students**
  *(The tradition of Upanishads, the Spirit of enquiry without fear)*
- **Excellent Teachers**
  *(The concept of “Gurukul”; गुरू साक्षात परब्रह्म :)*
- **Excellent Institutions**
  *The Nalanda University*

Excellence in Students
*(Don’t Teach them – Make them Learn)*

- Spirit of Enquiry;
- Hard work, Patience and Perseverance;
- Global Outlook;
- Problem Solving skills;
- Multidisciplinary approach;
- Communication skills;
- Social Skills;
- Spirit of Team work *(More of WE and less of ME)*

Excellence in Teachers
*(Don’t Teach them – Make them Learn)*

- “It is not enough to teach man a specialty. Through it he may become a kind of useful machine, but not a harmoniously developed personality” - Albert Einstein.
- “The Teacher starts with the implicit belief that teaching itself has an inbuilt facet of learning and that he has as much to learn from the process of communication as the pupil himself” - Upanishads.
- “Treat your kid like a darling for the first five years. For the next five years, scold them. By the time they turn sixteen, treat them like a friend. Your grown up children are your best friends.” - Chanakya.
- “Innovate” don’t “Imitate”
  ......*तस्मि श्री गुरूद्वे नमः.*

Excellence in Institutions

- Has an international reputation for its research & Teaching; …where Teachers are honoured;
- Has a number of research stars and world leaders in their fields; modern curricula;
- Attracts the best staff and most able students from an international market;
- Has a first-class management with strategic vision and implementation plans;
- Makes a big contribution to society and our times;
- Has a very sound financial base; and has diversified sources of income;
- Has the confidence to set its own agenda.

Source: Alden and Lux 2004 (World Bank)

Excellence in Governance

- Integrity in appointments at all levels;
- Strong Leadership and Management Skills;
- Monitoring the quality of teaching and learning;
- Improvements in Research Quality;
- Competent Administration;
- Robust and transparent financial systems;
- Strong Human Resources processes for performance appraisal and development;
- Effective student support arrangements.

- source: M.Anandakrishnan
Conclusions

- Higher Education has been globalized – India has to become internationally competitive;
- The concept of World Class University has come to stay – bring “excellence” in our education system;
- Focus on Excellence in our Students, Teachers and Institutions;
- Indian Culture has the ethos – let us recall & learn from our past as we step into the future.
Take Away from the Conference

Following this conference, how I can contribute better to my College / Institute?

☞ By being a better teacher and administrator myself using all the inputs of the conference.
☞ Motivate students to be better learners, make them aware and responsible for their social obligations.
☞ Involve myself with all the developmental activities of the college.

Institute social responsibility, knowledge management, sharing of resources, understanding to think needs of society, research attitude, communication skills.

☞ Making my own college as a world class institute.
☞ Contributing / doing excellent job.
☞ Doing my work honestly.
☞ Taking guidance of experts from GOI.

☞ Energy Management Program.
☞ Enhancing of Industry-Institute Collaboration.
☞ Energy Audit of VPM’s GOI Project.

Let us continue with the program in future to come up with more hidden and applicable ideas, in the direction of emergence of the VPM as a whole. Personally, I am willing to impart the further improvements.
By self-motivation, motivate the peers to be more honest and disciplined. To have focused approach to bring glory and credit to self and thus to the institute. To be better human being.

During the course of this conference I have learnt in order to contribute better to my college. I must try to publish my research work in reputed journals. And also to achieve excellence in professional life one should always try to give his / her 100%. I would be obliged to attend such conference in future.

Living beyond ones potential, constant improvement and doing my best for better of the college. Importantly, skills and ideas learnt during this conference.

I would like to handle every component of my work more efficiently and effectively. In the present scenario, lot of administrative office’s clerical work is given to the department which eats away a lot of productive time. I would strive hard to bring this change and evolve a better teaching learning environment.
Please rank the following criteria factors in descending order of importance if VPM Group of Institution has to rise above and beyond excellence:

### 7 Criteria Factors

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Areas</th>
<th>(e.g. College Results in University Examinations)</th>
<th>Research, Development &amp; International Efforts</th>
<th>Human Resource - Students</th>
<th>Organisational &amp; Institutional Governance</th>
<th>Human Resources - Faculty &amp; Staff</th>
<th>Physical Resources</th>
<th>Teaching-Learning Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>6</td>
<td>4</td>
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<td>1</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

| sum         | 88    | 92    | 89  | 111 | 87  | 138 | 60  |
| avg         | 3.67  | 3.83  | 3.71 | 4.63 | 3.63 | 5.75 | 2.50 |
| std dev     | 2.08  | 1.95  | 1.40 | 1.50 | 1.86 | 1.70 | 1.91 |

### Summary

| 1 | Teaching-Learning Process | 60 |
| 2 | Human Resources - Faculty & Staff | 87 |
| 3 | Human Resources - Students | 88 |
| 4 | Results (e.g. College Results in University Examinations) | 89 |
| 5 | Research, Development & International Efforts | 92 |
| 6 | Organisation & Governance | 111 |
| 7 | Physical Resources | 138 |
Please rank the following criteria factors in descending order of importance if VPM Group of Institution has to rise above and beyond excellence:

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Resources</th>
<th>7 Criteria Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teaching–Learning Process</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Results (e.g. College Results in University Examinations)</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>Organisation &amp; Governance</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Human Resource -Students</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Human Resources -Faculty &amp; Staff</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Physical Resources</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>Teaching-Learning Process</td>
<td>63</td>
</tr>
</tbody>
</table>

Summary

- Teaching–Learning Process: 63
- Results (e.g. College Results in University Examinations): 95
- Organisation & Governance: 71
- Human Resource -Students: 64
- Human Resources -Faculty & Staff: 72
- Physical Resources: 104
<table>
<thead>
<tr>
<th>Ranks</th>
<th>7 Criteria Factors</th>
<th>Conference 1</th>
<th>Conference 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Research, Development &amp; International Efforts</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Teaching–Learning Process</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Human Resources -Faculty &amp; Staff</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Organisation &amp; Governance</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Human Resource -Students</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Physical Resources</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>Results (e.g. College Results in University Examinations)</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>
1. Arising out of the deliberations during the conference certain thoughts were explored for research viz. organisational citizenship behaviour and job satisfaction. Two behavioural scientists viz. Ms. Sukhada Tambe and Ms. Aditi Deuskar are exploring the possibility of conducting a research study on the above theme and have progressed in the matter in terms of the objectives of the study, questionnaire, sample size and the mode of operation of the survey. The study is on.

2. Exploring the theme RAABE again Ms. Sukhada Tambe and Ms. Aditi Deuskar have submitted a paper on the said theme which is a pointer to the possibility of further research. The paper explores certain soft skills sets viz. leadership, goal directed behaviour, motivation, learning, team work, components of performance, competence et al. In the final analysis the author/s have articulated their thoughts through a regression model which is presented below:
Further work on the above model, which is presently on, could help test a number of hypotheses. Thus it is seen in the above equation that a significant change in independent variable may bring about a corresponding change in dependent variable – further, the extent of change is known in quantified terms.

3. Discussion on the academic excellence models by Dr. Vishnu Kanhere in the keynote address was followed by a detailed study of different academic excellence models as part of a case study given as an assignment, to the delegates, for exploration, detailed analysis, interpretation and presentation.

Dr. S. Savanur’s presentation on the said case study resulted in further discussion and a special presentation to the teachers of DR VN BRIMS on 7th September, 2013. On this occasion, Ms. Jyotsna Golhar, Assistant Professor, DR VN BRIMS also made a presentation on the same theme and the outcomes

---

Regression co-efficient refers to the change occurred in dependent variable on account of one unit change in the independent variable.

*Exhibit 50: Regression Equation*  

\[
Y^\hat{} = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6
\]

where, \( Y = \text{dependent variable (performance)} \)

\( a = \text{constant (Human Resource)} \)

\( b_1, \ldots, b_n = \text{regression coefficients} \)

\( X_1, \ldots, X_n = \text{variables} \)

\( Y^\hat{}, \text{is the estimated value of dependent variable, i.e. performance} \)
were at best similar indicating the difference in approach and thinking of scholars, given the same set of data, as shown in Table 1 below. Both these presentations find a place in this publication.

<table>
<thead>
<tr>
<th>Rank</th>
<th>CRITERIA FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Research, Development and International Efforts</td>
</tr>
<tr>
<td>II</td>
<td>Teaching-Learning Process</td>
</tr>
<tr>
<td>III</td>
<td>Human Resources -Faculty and Staff</td>
</tr>
<tr>
<td>IV</td>
<td>Organisation &amp; Governance</td>
</tr>
<tr>
<td>V</td>
<td>Human Resource - Students</td>
</tr>
</tbody>
</table>

Table 1: Criteria Factors

4. The conferences have raised the expectations of people in terms of the future ahead of them and their potentialities to work towards excellence and beyond to meet globally recognised standards. Arising out of the same VPM, Thane has announced the launch of ‘Srujan’³ which will be a platform through which our teachers can test their research and writing skills vis-a-vis benchmarks of a journal of global standards. Few select teachers or teachers on their own may provide a write-up on the topic of their interest for contributions to Srujan which can then be evaluated for its viability. The necessary support and facilitation can be given to the teachers once the proposal seems to be viable. In fact, every teacher can make an effort in this direction and seize the opportunity.

³Srujan is a Sanskrit expression and means being ‘creative’.
This is one way of motivating the teachers to come out of their shell and respective silos to assay their resources, initiative and capabilities to the acid test of global standards so that eventually they can spontaneously respond to the requirements of such standards of other journals. This is a medium term plan having long term implications for the self–development of teachers particularly with respect to global standards.

5. Another encouraging feature is a voluntary request made by Principal, Dr. Pejaver to develop talent among teachers to contribute to VPM’s Encyclopaedia. She wants a workshop to be conducted with a view to simulate an environment that facilitates honing of skills and enabling contribution to VPM’s Encyclopaedia.

6. Dr. Vijay V. Bedekar interacted with the teachers to discuss ways and means of developing their teaching pedagogy and andragogy drawing inspiration from Trivium, Quadrivium and Indian heritage approaches to education viz. Panchatantra, Arthashastra, Vedangas et al. when he presented his thoughts to the teachers of DR VN BRIMS on 1st January, 2014 on Teaching Pedagogy.

7. While the inputs were being developed for the first conference on RAABE, DR VN BRIMS conducted a one day workshop\(^4\) on case development on 21st May, 2013. At the same time, a summer school program was being planned for DR VN BRIMS on the lines of the conference on RAABE. The said summer school programme could not take off. Given the experience and success of two conferences on the said theme of RAABE, DR VN BRIMS designed a winter school program

\(^4\)Such a case study workshop can be replicated for the BMS students of VPM's Commerce college.
which was launched on 20th December, 2013 and successfully conducted in the following tranches:

<table>
<thead>
<tr>
<th>Tranche</th>
<th>Duration</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>20th and 21st December, 2013</td>
<td>Teaching Pedagogy – case study, experiential learning, interaction and discussions on motivational videos.</td>
</tr>
<tr>
<td>Third</td>
<td>3rd January, 2014</td>
<td>Participants’ Presentation on Panchatantra, Kautilya’s Arthashastra and a case study on 26th November, 2008 - Terrorist Attack on the Taj, Mumbai.</td>
</tr>
<tr>
<td>Fifth</td>
<td>24th January, 2014</td>
<td>Participants’ Presentation on Research Methodology based on case studies designed by Dr. S. Agarkar viz. Sigmund Freud, Abraham Maslow, Jean Piaget and Edward de Bono</td>
</tr>
</tbody>
</table>

Thus, the Winter School was an effective platform for developing leadership qualities in teachers, improving expertise of teachers in research methodology and in general to enable and empower teachers to acquire state-of-the-art skills to meet the customised needs of a management institute viz. industry academic partnership, use of ICT
prowess in functional areas of management and understanding the impact of globalisation and the challenges thereof apart from appreciation of the knowledge / wisdom which is embedded in our rich heritage.

8. Since research is an important part of teachers’ professional, day-to-day life and research is a top priority as a part of the measurement of academic excellence, all over the world, Dr. Vijay V. Bedekar has been stressing on its importance through various quantified scientific measures of performance used globally to evaluate teachers viz. publications in peer reviewed journals, citation index, impact factor, nos. of patents / copyrights per teacher per institution. In order to provide the right impulses and stimuli to teachers in this behalf, a two day intensive workshop on research methodology was conducted as part of the Winter School Schedule of DR VN BRIMS under the leadership of Dr. S. Agarkar. Taking a cue from the same and customizing the research methodology content of the said winter school, it is proposed to replicate the research methodology course for other VPM’s GOI. The change in mindsets of teachers well externalised during two conferences on RAABE (June and October, 2013) indicated that in general delegates had an unusual, novel and useful exposure which could be leveraged to the common benefit of all stakeholders. Feedback of a participant via email dated 6th October, 2013 says it all ‘It was indeed a great learning experience, and one of the best conferences I have ever attended’ - Dr. M. Kolet.
Special Contributions
Ms. Jyotsna Golhar

Academic Excellence Models refer to the criteria factors listed by several accrediting agencies institutions to perform a rating exercise of academic institutions with respect to several aspects of the academic processes governing the delivery mechanisms of academic institutions. The criteria factors have been studied with respect to 17 models and duly abridged to facilitate further study and research. The presentation highlighted the key factors which are important for credit rating of academic institutions and a parato curve has been fit to articulate the grouping of factors into a ABC classification – A being most important and C being relatively less important with B in between A and C.
Exhibit 51: Pareto Chart-‘Academic Excellence Models’ frequency occurrence of different criteria factors in different models
EXCELLENCE

- What we mean by excellence in frame of our GOI?
- GAP between observed and expectations?
- Not only NAAC or NBA
- Thinking above and beyond that..............
  –so begins the journey of Rising Above and Beyond Excellence

EXCELLENCE

<table>
<thead>
<tr>
<th>Excellence</th>
<th>quality of being outstanding or extremely good superiority, perfection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding</td>
<td>prominent, eminent, distinguished, notable</td>
</tr>
<tr>
<td>Good</td>
<td>to be desired or approved of, morally right, beneficial</td>
</tr>
<tr>
<td>Superiority</td>
<td>preeminence</td>
</tr>
</tbody>
</table>

EXCELLENCE

- the process of attaining a state of completeness and flawlessness
  - Which is complete – (which contains all requisite parts)
  - Which is so good that nothing of the kind could be better
  - Which has attained its purpose
### Accreditation Bodies/Awards

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>NAME OF ACADEMIC EXCELLENCE MODELS</th>
<th>HOST CONTINENT/COUNTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>NBA-National Board of Accreditation</td>
<td>India</td>
</tr>
<tr>
<td>M2</td>
<td>NAAC-National Assessment and Accreditation Council</td>
<td>India</td>
</tr>
<tr>
<td>M3</td>
<td>Ramakrishna Bajaj Award</td>
<td>India</td>
</tr>
<tr>
<td>M4</td>
<td>European Quality Award</td>
<td>Europe</td>
</tr>
<tr>
<td>M5</td>
<td>Australian Quality Award</td>
<td>Australia</td>
</tr>
<tr>
<td>M6</td>
<td>ARWU-Academic Ranking of World Universities</td>
<td>Shanghai</td>
</tr>
<tr>
<td>M7</td>
<td>ABET-Accreditation Board for Engineering Technology</td>
<td>United States of America</td>
</tr>
<tr>
<td>M8</td>
<td>QS (Quacquarelli Symonds) Rankings For World University</td>
<td>United Kingdom</td>
</tr>
</tbody>
</table>

### Accreditation Bodies/Awards

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>NAME OF ACADEMIC EXCELLENCE MODELS</th>
<th>HOST CONTINENT/COUNTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>M9</td>
<td>QS (Quacquarelli Symonds) Rankings For - Asian University</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>M10</td>
<td>QS (Quacquarelli Symonds) Rankings For – Latin American University</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>M11</td>
<td>QS (Quacquarelli Symonds) STARS</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>M12</td>
<td>HEEACT-Higher Education Evaluation and Accreditation Council of Taiwan</td>
<td>Taiwan</td>
</tr>
<tr>
<td>M13</td>
<td>THE-Times Higher Education Rankings By British magazine</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>M14</td>
<td>Wisconsin’s Model Academic Standards</td>
<td>United States of America</td>
</tr>
<tr>
<td>M15</td>
<td>The Institution of Engineers, Singapore Engineering Accreditation Board</td>
<td>Singapore</td>
</tr>
<tr>
<td>M16</td>
<td>CRISIL Business School Grading</td>
<td>India</td>
</tr>
<tr>
<td>M17</td>
<td>The University of Montreal</td>
<td>United States of America</td>
</tr>
</tbody>
</table>
**Summary of Academic Excellence Models**

- Quality of Education depends on the effectiveness and adequacy of the Teaching and Learning Process (TLP).
- In turn TLP depends on the existence of a proactive and powerful pedagogy* as well as andragogy**.
- Pedagogy captures standards, curriculum, instruction and assessment.
- Andragogy identifies a student centric TLP.

*Pedagogy*—An educational approach characterized by teacher centredness. The teacher is viewed as an authority figure and students are not generally involved in decisions/actions in regard to learning. Related concepts include: directed learning.

**Andragogy**—An educational approach characterized by learner-centeredness, self-directed learning, humanism, critical thinking, experiential learning, and transformational learning.

**Steps In creating Summary of Academic Excellence Models**

- Studied the criteria deployed by various:
  - assessment bodies,
  - accreditation bodies,
  - quality awards and
  - ranking agencies worldwide

- Explored a global perspective of academic excellence.

**Steps in creating Summary of Academic Excellence Models**

- Given different global models, a methodology was developed to capture different ‘criteria factors’*** into a suitable, simple and understandable framework for evaluation and measurement.

***Criteria factor***—a factor identified by an assessing body as one of the items for studying the overall organisational accomplishment.

A list of ‘criteria factors’ makes a whole set of items required to be studied to assess the score of the assessed organisation which may be expressed in quantified terms or letter grades with meanings attached to different levels of quantification or letter grades as the case may be.
**Criteria factor (CF)**

- NBA numerical score
- NAAC letter grades

**CF importance**

\[ \sum w = \text{unity(1) or 100\%} \]

---

**Steps in creating Summary of Academic Excellence Models**

**Step 1:** Academic excellence term was defined with the help of various CF used by the respective models of Accreditation, Renowned Quality Awards and Ranking agencies.

**Step 2:** Models from different parts of world like US, UK, Asia and Australia were identified.

**Step 3:** Finally list of seventeen Academic Excellence Models were studied and coded using the letter M and were represented by codes ranging from M1 to M17. (Exhibit-1)

**Step 4:** All the 17 models were studied and finally 30 CFs were listed. A summary of these CFs was made using Microsoft Excel (version 2007) tool and a summative score was calculated.

**Step 5:** 30 CFs presented in Exhibit-4 were highlighted and tabulated. Following the tabulation of the CFs of the 17 models, the frequency of occurrence of the different CFs was calculated. The order of importance of any CFs was dependent on the numerical score which in turn was based on frequency of occurrence.
Step 6: in the 17 models the CFs for ‘Research, Development & International Efforts’ scored the highest viz 21. All other CFs were also measured in a similar way. Thus, there are 13 different CFs which have a frequency of occurrence of only one.

CRITERIA FACTOR - RESEARCH

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| Research, Development & International Efforts | Research frequency = 21. Nomenclatures:
• Research, Development & International Efforts - M1
• Research, Consultancy & Extension - M2
• Research output - M6
• Citations per faculty - M8, M9
• International orientation - M8, M9
• Publications per Faculty Member - M10
• Citations per Paper - M10
• Internationalization - M11
• Research Quality - M11

Thus - Research, Development & International Efforts frequency = 21

Steps in creating Summary of Academic Excellence Models

Different models-different nomenclatures for similar activity
• list of CF abridged

Steps in creating Summary of Academic Excellence Models

CRITERIA FACTOR - RESEARCH

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| Research, Development & International Efforts | • Research productivity - M12
• Research impact - M12
• Research excellence - M12
• Research (volume, income, & reputation) - M13
• Research and Development - M15
• Research - M16
• Conducting Research - M17
• Publications - M17

Steps in creating Summary of Academic Excellence Models

• Summative score was calculated by assigning value viz.
• Score----‘1’ CF PRESENT in a model
• Score----‘O’ CF ABSENT in a model
• \( \sum N \) = total score = 114 vide Exhibit - 2
e.g. in model- M7 and the corresponding inclusion in 30 CFs is as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>Original Expression</th>
<th>Included in one of the 30 CFs</th>
</tr>
</thead>
<tbody>
<tr>
<td>M7</td>
<td>Program Educational Objectives</td>
<td>Organisation &amp; Governance</td>
</tr>
<tr>
<td>M7</td>
<td>Faculty</td>
<td>Human Resources - Faculty &amp; Staff</td>
</tr>
<tr>
<td>M7</td>
<td>Facilities</td>
<td>Physical Resources</td>
</tr>
</tbody>
</table>

Exhibit 4-‘ACADEMIC EXCELLENCE MODELS’ FREQUENCY OF OCCURRENCE OF DIFFERENT CRITERIA FACTORS IN DIFFERENT MODELS WORKSHEET

HOW TO INTERPRET PARETO CHART?

<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>NUMBER OF CRITERIA FACTORS</th>
<th>IMPORTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5</td>
<td>56 %</td>
</tr>
<tr>
<td>B</td>
<td>12</td>
<td>32 %</td>
</tr>
<tr>
<td>C</td>
<td>13</td>
<td>12 %</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100 %</td>
</tr>
</tbody>
</table>

Exhibit 5

Exhibit 6

ACADEMIC EXCELLENCE MODELS’ FREQUENCY OCCURRENCE OF TOP CRITERIA FACTORS IN 17 DIFFERENT MODELS INDEXED AS M1 TO M17

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Criteria Factors</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Research, Development &amp; International Efforts</td>
<td>21</td>
<td>18.42%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Teaching-Learning Process</td>
<td>16</td>
<td>14.04%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Human Resources - Faculty &amp; Staff</td>
<td>10</td>
<td>8.77%</td>
<td>56%</td>
</tr>
<tr>
<td>4</td>
<td>Organisation &amp; Governance</td>
<td>9</td>
<td>7.89%</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Human Resource -Students</td>
<td>8</td>
<td>7.02%</td>
<td></td>
</tr>
</tbody>
</table>
## ACADEMIC EXCELLENCE MODELS’ FREQUENCY OCCURRENCE OF TOP CRITERIA FACTORS IN 17 DIFFERENT MODELS INDEXED AS M1 TO M17

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Criteria Factors</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Physical Resources</td>
<td>7</td>
<td>6.14%</td>
</tr>
<tr>
<td>7</td>
<td>Results</td>
<td>6</td>
<td>5.26%</td>
</tr>
<tr>
<td>8</td>
<td>Strategic Planning</td>
<td>3</td>
<td>2.63%</td>
</tr>
<tr>
<td>9</td>
<td>Quality of process, product and service</td>
<td>3</td>
<td>2.63%</td>
</tr>
<tr>
<td>10</td>
<td>Faculty student ratio</td>
<td>3</td>
<td>2.63%</td>
</tr>
<tr>
<td>11</td>
<td>Recruiter review</td>
<td>3</td>
<td>2.63%</td>
</tr>
<tr>
<td>12</td>
<td>Innovations and Best Practices</td>
<td>2</td>
<td>1.75%</td>
</tr>
<tr>
<td>13</td>
<td>Measurement, Analysis &amp; Knowledge Management</td>
<td>2</td>
<td>1.75%</td>
</tr>
<tr>
<td>14</td>
<td>Institutional Support</td>
<td>2</td>
<td>1.75%</td>
</tr>
<tr>
<td>15</td>
<td>Special criteria for specific subjects</td>
<td>2</td>
<td>1.75%</td>
</tr>
<tr>
<td>16</td>
<td>Financial Resources, Allocation &amp; Utilization</td>
<td>2</td>
<td>1.75%</td>
</tr>
<tr>
<td>17</td>
<td>Interaction between Educational Institution &amp; Industry</td>
<td>2</td>
<td>1.75%</td>
</tr>
<tr>
<td>18</td>
<td>Supplementary Processes</td>
<td>1</td>
<td>0.88%</td>
</tr>
<tr>
<td>19</td>
<td>Operations Focus</td>
<td>1</td>
<td>0.88%</td>
</tr>
<tr>
<td>20</td>
<td>Impact on society</td>
<td>1</td>
<td>0.88%</td>
</tr>
<tr>
<td>21</td>
<td>Continuous Improvement</td>
<td>1</td>
<td>0.88%</td>
</tr>
<tr>
<td>22</td>
<td>Recurring and outgoing exchange students</td>
<td>1</td>
<td>0.88%</td>
</tr>
<tr>
<td>23</td>
<td>Web Visibility</td>
<td>1</td>
<td>0.88%</td>
</tr>
<tr>
<td>24</td>
<td>Graduate Employability</td>
<td>1</td>
<td>0.88%</td>
</tr>
<tr>
<td>25</td>
<td>Third mission activity, measuring areas of social &amp; civic engagement</td>
<td>1</td>
<td>0.88%</td>
</tr>
<tr>
<td>26</td>
<td>Industry income innovation</td>
<td>1</td>
<td>0.88%</td>
</tr>
<tr>
<td>27</td>
<td>Ability to Work</td>
<td>1</td>
<td>0.88%</td>
</tr>
<tr>
<td>28</td>
<td>Skill in Communication</td>
<td>1</td>
<td>0.88%</td>
</tr>
<tr>
<td>29</td>
<td>Production of Quality Work</td>
<td>1</td>
<td>0.88%</td>
</tr>
<tr>
<td>30</td>
<td>Connections with Community</td>
<td>1</td>
<td>0.88%</td>
</tr>
</tbody>
</table>

### ABC Classification

- **A**: 56% 88% 100%
- **A+B**: 100%
- **A+B+C**: 100%

### Cumulative Percentage

<table>
<thead>
<tr>
<th>Classification</th>
<th>Cumulative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>56%</td>
</tr>
<tr>
<td>A + B</td>
<td>88%</td>
</tr>
<tr>
<td>A + B + C</td>
<td>100%</td>
</tr>
</tbody>
</table>
Dr. S. Savanur:

Presentation on Academic Excellence Models once again explores 17 models which included 120 parameters. However, 30 parameters were chosen as key criteria factors for analysis and were critically examined for evaluation in the final analysis. The said 30 parameters are as follows:

<table>
<thead>
<tr>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Governance, Leadership &amp; Management</td>
</tr>
<tr>
<td>2. Leadership</td>
</tr>
<tr>
<td>3. Strategic Planning</td>
</tr>
<tr>
<td>4. Financial Resources, Allocation and Utilization</td>
</tr>
<tr>
<td>5. Institutional Support</td>
</tr>
<tr>
<td>6. HR (Faculty and Staff)</td>
</tr>
<tr>
<td>7. Customer Focus</td>
</tr>
<tr>
<td>8. Infrastructure and Learning Resources</td>
</tr>
<tr>
<td>9. Teaching, Learning and Evaluation</td>
</tr>
<tr>
<td>10. Quality of Faculty</td>
</tr>
<tr>
<td>11. Curricular Aspect</td>
</tr>
<tr>
<td>12. Research, Consultancy &amp; Extension</td>
</tr>
<tr>
<td>13. Industry Link</td>
</tr>
<tr>
<td>14. International Effort</td>
</tr>
<tr>
<td>15. Ratio of International to domestic students</td>
</tr>
<tr>
<td>16. Student Support and Progression</td>
</tr>
<tr>
<td>17. Innovation and Best Practices</td>
</tr>
<tr>
<td>18. Performance Measurement &amp; KM</td>
</tr>
<tr>
<td>19. Faculty-Student Ratio</td>
</tr>
<tr>
<td>20. Ratio of PhD to Bachelor Degree</td>
</tr>
<tr>
<td>21. Citation per faculty</td>
</tr>
<tr>
<td>22. Workforce Focus</td>
</tr>
<tr>
<td>23. Operations Focus</td>
</tr>
<tr>
<td>24. Social Responsibilities</td>
</tr>
<tr>
<td>25. Graduate Employability</td>
</tr>
<tr>
<td>26. Defined Learning/teaching objectives</td>
</tr>
<tr>
<td>27. Business Results</td>
</tr>
<tr>
<td>28. Special Criteria for specific subjects</td>
</tr>
</tbody>
</table>

Exhibit 52: 30 Parameters

The first eight factors accounted for 50% weightage, the next nine and the last 13 criteria factors accounted for 30% and 20 % weightage respectively. Though both the scholars – Ms. Jyotsna Golhar and Dr. S. Savanur use the same database, the approaches were different yet outcome is similar if not identical. Of course, the second presentation of Dr. S. Savanur took NAAC as a frame of reference for analysis.
Evolving an Academic Excellence Model

Dr S K Savanur
Department of LIS
Joshi-Bedekar College
Thane

Models covered
• Seventeen Models of Academic Excellence Indicators were included in the study
• The selected models formed representative sample
• Ranking Models
  – Academic Ranking World Universities (ARWU) [M6]
  – Quacquarelli Symonds (QS) Ranking for World Universities [M8]
  – Quacquarelli Symonds (QS) Ranking for Asian Universities [M9]
  – Quacquarelli Symonds (QS) Ranking for Latin American Universities [M10]
  – THE Ranking [M13]
  – University of Montreal [M17]
• Quality Award Models
  – Ramakrishna Bajaj Award 70% Management and only 30% Education Related [M3]
  – European Quality Award [M4]
  – Australian Quality Award [M5]
• Over 120 Parameters/criteria were included in these 17 ‘Models of Excellence’

Types of Models considered (Contd.)
• Accreditation Models
  – National Board of Accreditation (NBA) [M1]
  – NAAC [M2]
  – Accreditation Board of Engineering and Technology (ABET) (US) [M7]
  – QS STARS [M13]
  – The Institution of Engineers, Singapore Engineering Accreditation Board (SEAB) [M15]
  – CRISIL Business School Grading [M16]
• Others
  – Higher Education Evaluation and Accreditation Council of Taiwan [HEEACT] Emphasis white on research, Ideal for Research Laboratories [M12]
  – Wisconsin’s Model academic Standards: Expected Graduate Qualities [M14]
• Over 120 Parameters/criteria were included in these 17 ‘Models of Excellence’

Objectives and Significance
• To identify those parameters which are reflected in most of the models.
• To highlight those parameters that are not covered by the NAAC key issues.
• Significance of this Study is to ensure that valuable resources are spent on such really critical criteria.

Steps of Analysis
• Comparison of the parameters of the Models
• Parameters under each model were critically examined, and
• A checklist of categories along with their corresponding Model Numbers was prepared. [The checklist is given on the following slide.]
• Semantically related criteria were clubbed together
• What is not in NAAC Criteria?

Note on Semantic Convention
• ‘Quality of Faculty (10)’ and ‘Teaching-Learning (9)’ are merged.
• ‘Evaluation (Part of 9)’ is merged with ‘Performance Measurement (18)’
• ‘Results’ under M3 is not included, as it is implied under ‘Performance Measurement and KM (18).’
• KM is separated from 18 and is given independent position.
• Although ‘Leadership’, ‘Strategic Planning’, ‘Financial Resources, Allocation and Utilization’, ‘HR (Faculty and Staff)’ and ‘Customer Focus’ could have been merged in ‘Governance, Leadership & Management’, it is not done to retain the identity of these managerial aspects.
• The NAAC is considered as the Frame of Reference
### Conventions Contd.

**Some Synonymous Expressions**

- Customer Focus/Engagement (7) = Stakeholder Involvement
- Impact on Society and Connection with Community = Student Support (16)
- Web Visibility (26)

---

<table>
<thead>
<tr>
<th>Criteria/Factors</th>
<th>Frequency</th>
<th>Percentages</th>
<th>Cumulative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching, Learning and Quality of Faculty</td>
<td>10</td>
<td>10.42</td>
<td>10.42</td>
</tr>
<tr>
<td>Research, Consultancy &amp; Extention</td>
<td>9</td>
<td>9.38</td>
<td>19.80</td>
</tr>
<tr>
<td>Infrastructure and Learning Resources</td>
<td>6</td>
<td>6.25</td>
<td>26.05</td>
</tr>
<tr>
<td>Evaluation and Performance Measurement</td>
<td>6</td>
<td>6.25</td>
<td>32.30</td>
</tr>
<tr>
<td>Governance</td>
<td>5</td>
<td>5.21</td>
<td>37.51</td>
</tr>
<tr>
<td>Governance, Leadership &amp; Management</td>
<td>4</td>
<td>4.17</td>
<td>41.68</td>
</tr>
<tr>
<td>Student Support (16)</td>
<td>4</td>
<td>4.17</td>
<td>45.85</td>
</tr>
<tr>
<td>Faculty – Student Ratio</td>
<td>4</td>
<td>4.17</td>
<td>50.02</td>
</tr>
<tr>
<td>Strategic Planning</td>
<td>4</td>
<td>4.17</td>
<td>54.19</td>
</tr>
<tr>
<td>Human Resource Management and Utilisation</td>
<td>4</td>
<td>4.17</td>
<td>58.36</td>
</tr>
<tr>
<td>New (PFM) in Recent Degree</td>
<td>3</td>
<td>3.13</td>
<td>61.49</td>
</tr>
<tr>
<td>Defined Learning/Teaching Objectives</td>
<td>3</td>
<td>3.13</td>
<td>64.62</td>
</tr>
<tr>
<td>Institutional Support</td>
<td>2</td>
<td>2.08</td>
<td>67.75</td>
</tr>
<tr>
<td>Industry Link</td>
<td>2</td>
<td>2.08</td>
<td>70.88</td>
</tr>
<tr>
<td>Student Support and Progression</td>
<td>2</td>
<td>2.08</td>
<td>74.01</td>
</tr>
<tr>
<td>Social Responsibilities</td>
<td>2</td>
<td>2.08</td>
<td>77.14</td>
</tr>
<tr>
<td>Graduate Employability</td>
<td>2</td>
<td>2.08</td>
<td>80.27</td>
</tr>
<tr>
<td>Financial Resources, Allocation and Utilization</td>
<td>2</td>
<td>2.08</td>
<td>82.35</td>
</tr>
<tr>
<td>Citation per faculty</td>
<td>2</td>
<td>2.08</td>
<td>84.43</td>
</tr>
<tr>
<td>Workforce Focus</td>
<td>2</td>
<td>2.08</td>
<td>86.51</td>
</tr>
<tr>
<td>Special Criteria for specific subjects</td>
<td>2</td>
<td>2.08</td>
<td>88.59</td>
</tr>
<tr>
<td>Ratio of International to Domestic Students</td>
<td>1</td>
<td>1.04</td>
<td>90.67</td>
</tr>
<tr>
<td>Ratio of PhD to Bachelor Degree</td>
<td>1</td>
<td>1.04</td>
<td>92.75</td>
</tr>
<tr>
<td>KM</td>
<td>1</td>
<td>1.04</td>
<td>94.83</td>
</tr>
<tr>
<td>Workforce Focus</td>
<td>1</td>
<td>1.04</td>
<td>96.91</td>
</tr>
<tr>
<td>Defined Learning/Teaching Objectives</td>
<td>1</td>
<td>1.04</td>
<td>98.99</td>
</tr>
<tr>
<td>Supplementary Processes</td>
<td>1</td>
<td>1.04</td>
<td>100.03</td>
</tr>
</tbody>
</table>
The quotes put forth by eminent personalities throw light on ‘Education’. The word ‘Education’ is derived from the Greek word ‘Educatum’, which means ‘the art of teaching’, ‘to bring forth’, ‘to lead out’. Besides the Socratic dictum – ‘Virtue is Knowledge’, enlightens us to the fact that knowledge is latent in each of us, what is needed is a good teacher who will draw it and bring it to the forefront.
“Every piece of marble has a statue in it waiting to be released. As the sculptor to the stone, so the teacher to the student” – Confucius.

The aim of education is something more than what we understand. Education is not mere acquisition of information from a variety of books, Internet or varied sources. Rather education includes our attitude, emotions, feelings, the manner in which we discharge our duties and conduct ourselves with others at home and surroundings, all these should reflect and manifest the effect of our education.

Education is not mere information seeking but more importantly it must bring about transformation of the inner personality of the student. It is blossoming of every faculty of the student leading to the projection and development of an integrated personality. This is the blossoming of human excellence, which includes physical, mental, intellectual, psychic domains of personality. More importantly it should tilt the spiritual domain of an individual’s personality which lies dormant and unused. Thus, education should also cater to the spiritual development which is an essential purpose of human life. Worldly education is related to the head, but spiritual education is related to the heart.

The Kothari Commission had stressed the need for value education for moral and spiritual impact on the evolving personality of students. The commission says that the combination of knowledge, with a lack of values may be dangerous to the society. It is therefore necessary, to give proper value education to our educational system by balancing the knowledge and skills which science and technology bring with the values and insights associated with ethics and religion and Indian Heritage at large at its best.
The present system of education can make man a computer but not a composer. This knowledge acquired can make an individual seek name, fame, popularity and status, but alas! the knowledge lying dormant remains untouched. Worldly education is related to the head. The purpose of education has to be: ENLIGHTENMENT

Education must be directed towards human excellence and even beyond. It has to be enhancement of one's total personality. This is the only way in which man invents himself, by which he attains intellectual illumination. Thus, the role of a teacher, in this regard, is of a prime significance. The institution is recognised not for its large class-rooms and marble flooring but it seeks recognition because of the teacher and students. The teachers are endowed with special qualities with the help of which they are able to touch the tender minds of the student. The teachers are equated to the designation of a GURU. A guru is one who dispels the ignorance and instills knowledge which leads to wisdom (Jñana).

The value of the teaching process lies in raising the level of consciousness of the learner, in heightening the sense of wonder and awe and in emphasizing the unity of one with all i.e. man with his environment (nature). Nature is the greatest teacher. Nature is constantly teaching us by setting example before us. Nature adheres to a definite set of system, law and discipline. When we
look around, we observe there is seldom discordance in nature. Consider the
days and nights following one another, consider the cycle of seasons – one
following the other, so much of order, harmony and system is observed.
Nature as an exemplifier is constantly teaching us to be in harmony. But look
at us – MAN, completely discordant - anything, anywhere, at anytime – Man is
unable to learn from nature. The reason is he is not aware of the value of his
senses. The individual has to be taught how to effectively use his senses.

The Katha Upanisad says – “the doors of the body are faced outside” – This
means the doors of the body represent our five senses which are facing
outward. So the instruments by which one acquaints with his surroundings
are the senses but they all open to the outside. For example, with the eyes
having sight, one can see the whole world but with these eyes, no matter
however hard one tries, one cannot see oneself except in a mirror or some
image. So is the case with all other senses. Thus, the individual must be taught
the importance of the senses and also the proper utilization of them.

Truly, there is nothing wrong with the things of perception and the sense-
organs by themselves. When I perceive an object, the eyes with its sight
conveys the information through the senses to the mind and it is the mind
which then recognizes the object to be an apple which is red in colour and
regards it to be good. What was perceived by the eyes was Electro Magnetic
Radiation, but it was the mind which recognised the object to be an apple and
the judgment ‘good’ was passed accordingly. Thus, the role of the mind in an
individual’s life process is most crucial. It is said, one can control the
movement of the body by tying a rope but one is not aware of the ways and
the means to control the mind with its varieties and thought waves.
Controlling the mind is most difficult; there is a continuous flow of thoughts.
Swami Vivekananda has given a beautiful description of the mind and its nature. He says, the Human Mind is a monkey which is constantly wavering. If this monkey was to be mad then?.... if this mad monkey is given a glass of wine then?.... if it is further stung by a scorpion then? .... and if it was finally possessed by an evil spirit then?.....

Swami Vivekananda says this is the nature of the mind. So the most important task for man is to control the mischievous mind of ours.

Thus, our educational system must also provide knowledge not just about the outer world but also about oneself. Education must be a process of self-perusal. Education must be for life and not for living. So Excellence is Perfection. [Excellence should include 3 areas – Academic Excellence, Environmental Excellence and Human Excellence].

Thus, in conclusion it may be said:

End of Wisdom is Freedom
End of Culture is Perfection
End of Knowledge is Love
End of Education is Character
Summa Theologica is the sacred wisdom put forth by Thomas Acquinas.

This doctrine is 'Wisdom' which is above all human wisdom, so it is the Absolute wisdom. It is the highest principle for eg. He who plans the form of the house is called wise and architect in opposition to the inferior laborers who trim the wood and make ready the stone. Similarly in human life the prudent man is called wise as he directs his acts to a fitting end.

So “Wisdom is prudence to Man”. The man who considers absolutely the highest cause of the whole universe viz. God is most of all wise. Hence wisdom is knowledge of the divine things. All knowledge is latent within him.

Here it is said - “That which is known of God is manifest in them but also as far as he is known to Human Self alone and revealed to others.”

Thus, the sacred doctrine is especially called “Wisdom”.

ARISTOTELIAN METAPHYSICS:
Aristotle was the disciple of Plato. He was a Greek philosopher. His judgements were impartial and acute. He was indeed a man of Noble character. Aristotle was a lover of Truth. He did not care for beauty and style, but revered truth.
Aristotle’s treatise on philosophy is called “First Philosophy”. By this name he means the knowledge of the first highest or the general principle of the universe.

The subject matter of the first principle is “Being qua Being” or “Being so far so forth as it is Being”.

The main problem of Metaphysics is the discovery of ultimate principle and Reality. Aristotle explains the reality with the help of a single Antagonism of -

**FORM & MATTER:**
Form has pattern, it has actuality. Matter has potentiality, it has motion. Everything has movement but there must be some principle who initiates this movement.

Thus Aristotle’s metaphysics culminates in theology ie. God. He refers to God as the First principle as the unmoved mover who imitates all movement but is itself unmoved. God is the cause of everything.

Thus when we observe the views put forth by Aristotle and Thomas Acquiros, the one common aim for both is to seek the Highest Truth which is the ultimate truth, which is infallible and that is the Highest WISDOM. Excellence is seeking of the Highest i.e. WISDOM.
गुणवत्ता ही एखाद्या जमिनीत उगवत नाही की पावसासारखी आकाशातून धुवाधार कोसळत नाही. अथवा परिशदांचे एक विलोमनीय नाव म्हणजे गुणवत्ता. काव्याभोर कातळात नकोसा भाग हातोडा, खिचिचे घाव घालून मनगटात कठ बेडपर्यंत फोडत राहून त्यातून सुंदर शिळ्य साकारण त्याचं नाव गुणवत्ता, काव्याच्या कठोर कातळावर आपल्या करूळवाची नकळत नाममुद्रा कोरली जाणे म्हणजे गुणवत्ता. इतरांसाठी सावली होणारं, पीडितांसाठी माऊळी होणारं, अंधाराची काठी होणारं, स्वतंत्र सुंदर कमळासारखं जीवन जलाशयात उमलत जाऊन इतरांसाठी आदर्श ठरणे म्हणजे गुणवत्तेच्या पुढे एक पाऊल पडणे. एखाद्या व्यमित्ता, त्याच्या वजूळवाचा आणि करूळवाचा गंध जर मोक्षासारखा अवती-भोक्तीच्या वातावरणात दरवळत असेल तर तेथे मी नतमस्क होतो. म्हणूनच मी विषयी लाडक्या विविधावर्गांना सांगत असतो कि, 'तुमच्या व्यक्तित्वात फुटलेली हिरवीगार पालवी म्हणजे गुणवत्ता. तुमच्या व्यक्तित्वाच्या, करूळवाच्या पांढीवर डोलायरी, फुलारी दरवळत राहणारी फुल म्हणजे गुणवत्ता, आणि गुणवत्तेच्या पुठळ जाण्याचं स्वयं पाहाणे म्हणजे एम्हरेस्ट चढणाऱ्याची तयारी ठेवणे होय.'
गुणवत्ता : आजचा वास्तवाचा विस्तार.

आजच्या समाज जीवनाच्या अनेक क्षेत्रात जेव्हा भारतीय गुणवत्ता ह्याला लागतो तेंव्हा वास्तवाच्या विस्ताराचे चटके वसयला लागतात. काही ठिकानी तर भर दिसा कंदिल लावून गुणवत्ता शोधाची लागते. 'उत्कृष्टतेच्या पतीकेचे' या विघ्नवावर शिक्षा प्रसारक मंडळाच्या व्यवस्थापन संस्थेच्या येथीले चर्चा साधरुन असतानाच वर्तमान पत्रातल्या एका वातमीचा मला चटका लागला. जगातील सर्वोक्तर शिक्षा प्रशिक्षणाची यादी जेव्हा चंपास्त अने त्यात एकाही भारतीय शिक्षाचे आय नसल्याचे पाहून माझी मान असल्यास खाली गेली. या जगातुन शिक्षारांच्या संकल्पनेतील देशातील भारतात दिली. नालंदा, तपस्या, बलभद्र, अवदंतीपूर आणि नेहमेयाच्या शिक्षणाची विधाला महान दार्शनिक दिले. पण आजच्या आजच्या शिक्षारांची अवस्था काय? 'कशात काय अन फाटक्यात पाय' अशीच आहे.

गोणी भरा : मनाची मापं भरा

ज्याच्या मन कधी म्हणतां होत नाही, तो खरा प्राध्यापक. ज्याला नेहम्मच जानाची ताज्या लागलेली असते, तो खरा प्राध्यापक. विद्यार्थ्यांच्या सहवासात जो नेहम्म ह्याचा फुलांसर्वा टचतवीत असती आणि फुलांसर्वाच जानाचा गंध ज्याच्या व्यक्तिव्यवहृत दरवळ असतो तो प्राध्यापक मला आवडतो. फुलांचा गंध वारा एका दिशेला वाहून नेतो, पण उत्कृष्टतेच्या पतीकेचे गेलेल्या प्राध्यापकाच्या व्यक्तिव्यवा, जानाचा गंध दांही दिशेला जरवळ असतो. अशा प्राध्यापकाच्या मनाची गोणी नेहम्मच जानाचे बरलेल्या असते, असली पाहिजे. प्राध्यापक बहुमुख, बहुमुळ्य, चतुरबऱ्या, असले भागिजे. वहून मुळी आणि वहून आम्ही असले पाहिजे. 'चतकोराने मला न सुख' असे म्हणणारा तो असावा. त्याच्या करूनचाला संशोधनाचे अधिकार
व्याच्या संशोधनाच्या गमन डेग्याचे असावे. व्याच्या संशोधनाच्या प्रकाशातील मानकी जीवन हे सुखकर आणि सुंदर झावे. प्राध्यापकाच्या जानाची, वद्धीची गोणी भरवळ भरलेली असेल, तरतूद विद्याध्यायीमानाची मांग प्राध्यापकाच्या, प्रत्येक तासात भरली जातील, नाहीतर तुकारामाने म्हटलेल आहे...

'भांडे आणि गोणी, तुका म्हणे रीती दोन्ही.'

भांडे रिकामेचे करा: भांडे भरा  
एकदा एका झेन गुरुंना भेटायला एक प्राध्यापक गेले. गुरु म्हणाले, 'बसा भी चहा करून आणतो. पण प्राध्यापक म्हणाले, 'नको.. नको' मलातुम्हावा भरपूर प्रश्न विचारावर आहेत' तरीही झेन गुरुंनी चहा करून आणला. किटलीतील चहा ते कप वशीत ओतत राहिले, कपातून चहा सांडाूळला लागला तरी ते चहा ओततच राहिले. हे पाहून ते प्राध्यापक म्हणाले, 'अहो गुरुजी'. चहा ओतणे बंद करा - तो खाली सांडूळ बाया जातो आहे.' झेन गुरु शांतपणे म्हणाले, 'मी तेच म्हणतोय, तुम्ही आल्यापासून तुमची सारखी बडवड मी ऐकतोय. तुमच्या मनाचा कप आधीच भरलेला आहे. आता मी व्याच्यात कितीही ज्ञान ओतलं तरी ते चहासारखे सांडूळ जाणार. तुम्ही असं करा, आता जा - आणि नंतर केवळ की तुमच्या मनाचा कप रिकामा करून माझ्याकडे या.' उत्कृष्टविद्याच्या पलिकिकाच्या प्राध्यापक विद्याध्यायीतील व्याच्याच्या जाणीव करून देत असतो. मी तर दरवर्षी नव्या विद्याध्यायीना ही कथा सांगत असतो आणि म्हणत असतो कि,' माझ्या तासाला मनाचे भांडे रिकामे करून वेल ज्ञान जात रसाने भरभरून चैकऱ्या जात जा.'
प्राध्यापकाच्या शिक्षणाचे मुख्य

मी त्यालाच उत्कृष्टतेच्या परिस्थितीचा प्राध्यापक म्हणून ज्याचे प्रत्येक व्याख्यान विद्यार्थ्यांना रटाव न वाटता रसाळ वाटते. तसा संपत्तिवाच वर्गावर बाहर पडताना, 'आज मी नवं तारीखी चेतृण चालूल्याचा' प्रत्येक विद्यार्थ्यांना आला पाहिजे. मी विद्यार्थ्यांना दोन तास शिक्षकतात असेल आणि माध्यम वगृत जर शंभर विद्यार्थ्यांना असतील तर शिक्षकतात माझे दोन तास जातील, पण माध्यम समोरवण्याना माझ्या लागूक्या विद्यार्थ्यांचे मात्र दोन देऊता तसा जातात. त्यामुळे विद्यार्थ्यांना शिक्षकत असताना माध्यम दोन तासांचे मूल्य त्यांच्या नवां वर्षांत बरोबरीचे असते. त्याच्या माझ्यांना दोन तासांच्या बरोबरीचे असते पाहिजे आणि ते तसे नसेल तर प्राध्यापक म्हणून मला माझी शरम वाटती पाहिजे.

माध्यम विद्यार्थ्यांच्या माख्यां तातात भाकर शेटे हे भान ठेऊन मी शिकवलं पाहिजे. मला सच्चा लाखा वाचवर महिन्याळा पार मिळतो. मी जेवढं शेटे, तेवढं किंवा त्या प्रमाणात विद्यार्थ्यांना जात देतो का याची विषय आणि चिंतन ज्या दिवशी प्राध्यापक स्वतंत्रतेन करावला लागतील तो दिवस शैचिक वेळातील उत्कृष्टतेच्या परिस्थितीचा उपकाल असेल आणि अशी भरारी चेतृण शाळा प्राध्यापकाला पडावला 'सेल्यूट' माझा असेल.

जे सावलीच देत नाही, त्याचा भान शाळा कसे म्हणू ? जे गंगद्र देत नाही, त्याचा भान फूल कसे म्हणू ? महानांना जे अपवाची-भोवाची दरबंधत नाही, त्याचा भान प्राध्यापक कसे म्हणू ? वगृत शिक्षकत असताना, विद्यार्थ्यांचा मनाने विचेचा ज्ञान बसावा तसा चटकन माझाचा प्रकाश फडून नसेल तर त्याला भान 'तास' कसा म्हणू ? विद्याध्याय्यांचा मनातील अज्ञान माझाचा शंभर जो दूर करत नसेल तर त्याला 'उडालेला फ्युज' मी म्हणू नको तर काय म्हणू ?
मनाचे 'सॉफ्टवेअर आणि नकाराची सीडी'

चांगला आणि गुणवत्त प्राध्यापक तोंच असतो ज्याच्या जिमेरवर, वाणीवर त्याचा सजग पहारा असतो. मी काय बोलतो? काय शिकवतो? बर्गांत कसा वागतो? त्याचे दूरगामी परिणाम काय होताय, याचा प्राध्यापकच्या विचार करायला हवा.

शिक्षक, प्राध्यापक दोन प्रकारचे असतात. एक असे असतात की ते विद्यार्थ्याला सतत ओळखतर असतात की, 'तू हा विषय घेतला कशाला? तुला हा विषय जमून शकत नाही.'

अशी कायम नकार घंटा वाचवत असतात. असे शिक्षक विद्यार्थ्यासो कोवळ्या मनाच्या 'कप्पप्पयात (CD Drive मध्ये) 'मध्ये नेहमी नकारात्मकतेची 'गणतबकडी (CD)' टाकत असतात.

ल्यामुळे पुढे चालून त्या विद्यार्थ्याचा 'हार्डवेअर' नकारात्मक बाणायला लागते. तुम्ही जे पेरता तेच उपवत असते याचे सतत भान ज्याला असते तोच खरा उत्कृष्ट वागते पलकडचा शिक्षक.

दुसऱ्या प्रकारचे शिक्षक विद्यार्थ्याचा मनात सरपटणारी नकारात्मकतेची बुरठ झटून टाकतात आणि विद्यार्थ्यांचे हित क्षात्री त्याच्या मत्त च्या मनाच्या 'कप्पप्पयात (CD Drive) मध्ये नेहमी सकारात्मक विचारांची 'गणतबकडी (CD)' टाकतात. ल्यामुळे अशा विद्यार्थ्याचा शरीराचे 'हार्डवेअर' सकारात्मक वर्तन करायला लागते आणि ही गोष्ट विद्यार्थ्यांच्या, त्याच्या कुंटूळाच्या, समाजाच्या आणि देशाच्या हिताची असते. 'अरे हे तुला सहज जमेल', 'योडा प्रयत्न कर' असे सकारात्मकतेचे बी विद्यार्थ्यांच्या मनोभावात लेणा, वशाची सुंदर, सुंदर पुलं उमलत्याशिवाय राहणार नाहीत.
कुलगुरु
संस्थाचालक
प्राचार्य
प्राध्यापक
विद्यार्थी

मी कोण आहे?
मी काय करीत आहे?
मना काय केले पाहिजे?

पालक
शैक्षणिक क्षेत्रात गुणवत्तेचा झंडा उंच उंच फडकत ठवायचा असेल तर वरील आकृतीतील सहा घटकांनी सजग राहून उपरोक्त तीन प्रश्न स्वतःच्या सातत्याने विचारात राहून स्वतःच स्वतःने 'ऑफिट' करत राहावे. प्रश्नातील पाऊलवाट नेहमी यशस्विनी शिक्षाराकडेच जात असते.
विद्यार्थ्याच्या व्यविलयाची जडण - पडण

उत्कृष्टतेच्या पलिकेले कार्य करणारा प्राध्यापक विद्यार्थ्याना काय देतो, देऊ शकतो ते पहा -

प्राध्यापकांचे ध्येय:
(१) चांगला 'माणूस' घडविणे.
(२) चांगला नागरिक घडविणे.
(३) पशुत्वातून सुटका करणे.
(४) सामाजिक वाढिलकीची दीक्षा देणे.
(५) देशभक्त आणि राष्ट्रभक्तीची जाणीव निर्माण करणे.
(६) विद्यार्थ्याना जीवनदृष्टी देणे.
(७) सौंदर्य दृष्टी आणि कलादृष्टी देणे.
(८) भेदा-भेदाच्या संतुलनांचे पादण्याचा संस्कार करणे.
(९) मनोभूमीत मानवी मूल्यांचे वी पेणे.
(१०) निर्भय, निर्भर आणि आनंदानावर स्वार होण्याची हिम्मत देणे.

प्राणवंत

वरूत्व

करूत्व

नेतूत्व

दातूत्व

पितूत्व

विद्यार्थी
स्वयंमूल्यमापन

अति उल्कुट प्राध्यापक वनण्याचा सोपा बाटणारा अवघड पण आवश्यक मार्ग म्हणजे स्वयंमूल्यमापन. कंदिलाच्या काचे सारखे आपणच आपल्याला दररोज चामून पुन्हा स्वच्छ करायला पाहिजेच. स्वयंमूल्यमापन करायचे कसे? माझ्या दृष्टीने स्वयंमूल्यमापनाचे अष्टपदं असे आहेत:

डोळ्यांसारखा सुंदर आरसा नाही. चेहऱ्यासारखे अप्रमति दपृण नाही. डोळ्यांच्या आरशात व्यक्तिमानाचे भावतंग नेमकेपणाने टिपता येतात. डोळे हा अबोध व्यक्तित्वाच्या अंतर्गत असे मूक बाटणारा बोलका आरसा आहे. या आरशात अंतर्विकास चार्टकांनी स्वयंमूल्यमापन केले पाहिजेच. शिक्षक प्राध्यापकांनी डोळ्यांच्या कोण - कोण त्या आरशात आपली प्रतिमा पहावी ते आरसे असे आहेत.

(१) विद्याध्यायी डोळ्यांच्या आरशात प्राध्यापकाची प्रतिमा
(२) प्राचार्यांच्या डोळ्यांच्या आरशात प्राध्यापकाची प्रतिमा
(३) संस्थाचार्यांच्या डोळ्यांच्या आरशात प्राध्यापकाची प्रतिमा
(४) पालकांच्या डोळ्यांच्या आरशात प्राध्यापकाची प्रतिमा
(५) सहकारी प्राध्यापकांच्या डोळ्यांच्या आरशात प्राध्यापकाची प्रतिमा
(६) शिक्षकतंत्र कर्मचा-यांच्या डोळ्यांच्या आरशात प्राध्यापकाची प्रतिमा
(७) समाजांच्या डोळ्यांच्या आरशात प्राध्यापकाची प्रतिमा
(८) राष्ट्रीय - आंतरराष्ट्रीय पातळीवर प्राध्यापकाची प्रतिमा
प्राध्यापक - विद्वत्ता आणि प्रज्ञा

अतः उल्लंघ्न प्राध्यापक कसा असावा? नदी जुनीच असते पण, तिच्या वाहत्या प्रवाहातील पाणी मात्र नेहमीच नवे असते, तसा प्राध्यापक जुनाच म्हणजे तोंच, पण त्याच्या ज्ञानाचे पाणी वाहत्या प्रवाहासारख्या नित्यमूल्यन असले पाहिजे. म्हणजे अद्यावत ज्ञान त्याला पाहिजे. नदीचे पाणी जसे अतरी-भवतीच्या जमिनीतून भरपाय फळ काढण्यास उपयुक्त असते. तसे सामाजिक उपयुक्तता प्राध्यापकांच्या ज्ञानात असली पाहिजे.

प्राध्यापक विद्वत्ता असलाच पाहिजे, पण अतः उल्लंघ्न प्राध्यापक केवळ विद्वत्ता असता कामा नये, तर तो प्रज्ञार्थ असला पाहिजे. प्रज्ञार्थ विद्वत्ता असतो पण विद्वत्तात मात्र प्रज्ञार्थ असतो. विद्वत्ता ही दिव्यासारखी असते आणि दिव्याखाती ज्ञानांमाणे अंधार असतो त्याप्रमाणे विद्वत्ता प्राध्यापक स्वाभीम असू शकतो. विद्वत्ता दिव्यासारखी फक्त अवती - भोवती चा अंधार दूर करते, पण प्रज्ञा सूर्यासारखी असते. दूर्भाग्याचाच वाटप करताना जात, धर्म, पंथ, प्रांत, असा भेदभाव करत नाही. तर सर्वांचा तो आपल्या करुणेच्या कवेत वेळपूर्वे. प्रज्ञार्थ व्यक्तिच्या कर्तृत्व किरणांची समाजाची पातळी उंचावत असते. म्हणून प्राध्यापक हे प्रज्ञार्थ असले पाहिजे.

आज समाजात राजकीय, सामाजिक शिल हरवले आहे. चारित्र्य हरवले आहे. प्रज्ञार्थ, शिलवान नागरिक निर्माण करप्याचे आव्हान शिक्षण व्यवस्थेपुढे आहे.

संविद्यानाची उदेश्यिका आणि उद्द्देश्य

उद्देश्य काय? त्याची स्पष्ट दृष्टी प्राध्यापक, शिक्षण तज्ज्वांच्याकडे असती पाहिजे. आमच्या संवंश शिक्षण व्यवस्थेला, अभ्यासक्रमाला संविद्यानाच्या उदेश्यिके अधिकांश पाहिजे. न्याय, स्वतंत्र्य, समता, बंधुता आणि धर्मनिरपेक्षता या संवैद्यानाचिक
पंचशीलाचे, या मूल्यांचे वी विद्याध्यायी, नागरिकांचा मनोभूमित कसे रुजेल, कसे फुलेल,
कसे वाढेल आणि त्याची मधुर फळे सर्व भारतवासीयांना कसी चाकावला मिळतील या दृष्टीने
प्रयत्न करणे ही काळाची गरज आहे. बंचितांसह सर्व समाजविधान एकाच पातळीवर आणता
आले तर त्यांची प्रजा आणि प्रतिभा देशाला महासत्तेकडे नेत्या शिवाय राहूनार नाही.

शिक्षणाने व्यक्तीचीच नव्हे तर प्रत्येक समाज घटकांची जीवनाची पातळी उंचावली
पाहिले. चांगल शिक्षण कोणतं? असं जर मला कुणी विचारलं तर मी एवढं भूमिने,
देशातल्या सर्व बंधू भगिनींच जगणं सुखी आणि सुंदर करत ते खेरे शिक्षण, पण त्यासाठी
मानवी मूल्यांचा झेंडा मजबूत पणे हातात पकडणारे थोड्याही हात हवेत. हे समथं, सुंदर आणि
सजग कल्पक हातच आपणास अति उल्लासेचेहरे तेजून जातील.

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उपरोक्त आणि उत्कृष्टतेच्या पलीकडे

6 व्या बेटन आयोगातून सहयोगी प्राध्यापकाला कामाच्या मोबदला भूमूळ साधारणपणे वर्षाला ७,३०,००० रु. मिळावत. ३६५ दिवस कामाचे मानले तर साधारणपणे दिवसाला ३०० रुपये बसा हा मोबदला ठेवते. (याच सुदृढ़ कमीच्या घरव्या आहेत) यानुसार आठवड्याच्या १५ तास शिक्षणारा सह. प्राध्यापक ४०० रु. प्रत्येक तासाला मिळवल्या आदी व्याख्याता (visiting faculty). प्राध्यापकाच्या तुलनेत आठवड्याचा ६००० रु. इतकी परतफेड शिक्षणातून (output) [इतके काम] करत असतो. हि रक्म आणि लागला प्रत्येक मिळवणाऱ्याची रक्म यातील फरकाची परतफेड (output) ता कसी करू शकतो हा खरा प्रश्न आहे.

पुढील आलेखातील छायांकत भाग ही अनावश्यक सोशित खर्च (unabsorbed cost) दाखवतो. म्हणजे या रकमेची परतफेड त्याचा ह्या काम दिल्यास करू (तिही कमीत कमी खर्च) करायला हवी. ही इतर बौद्धिक कार्य (बाह्य पक्षांचा सल्लेगार किंवा प्रशिक्षण करून उत्पन्न मिळवणे किंवा शैक्षणिक संबंधित कार्ये करून आर्थिक उत्पन्न वाढवणे व अनावश्यक सोशित खर्च कमी करून किंवा शनिच्या पातळीवर आणणे. अति उत्कृष्ट म्हणजे या इतर शैक्षणिक कार्य तर्फे संपेक्षेचा नफ्या मिळवून देणे म्हणजे सहयोगी प्राध्यापकाच्या वेतना पेक्षा उत्पन्न जास्त असावे हीच खरी उत्पादकता. उत्पन्न पातळीवर पोहोचण्याचा हा अपराधीय एकमेव फार्म आहे.)

करताना स्टेशनरी, टपाल खर्च, इलेक्ट्रॉनिक साधनांच्या खर्च, अनावश्यक कागदपत्रे, साधनांची मनगा राखण्यातील खर्च (नियमित प्रशिक्षण वगळता) व बेठ यांची शक्य तेवढी बचत त्यांने करणे अपेक्षित आहे.

१५ आठवडेचे प्रति सहामाही धूमन वर्षाचे ३० आठवडे होतात. प्रतितास ४०० प्रमाणे आठवड्याच्या १५ तासाचे ३० आठवड्यात रपर्यात १,८०,००० होतात. म्हणजेच ७,३०,००० - १,८०,००० = रपर्यात ५,५०,००० परतफेड न केलेली अनावश्यक सोशित रक्म दर्शविला.
Success of an organization to a large extent depends on its ‘Leader’. According to Business Dictionary, Leader is a person or an entity that holds a dominant or superior position within its field, and is able to exercise a high degree of control or influence over others. A leader is the one who leads the group to the pre-decided goal. Various leadership theories provide an understanding of the various leadership styles that exist across organizations.

Different people have different leadership styles. Also same leader may adopt different leadership styles at different points of time. A leader who would be in autocratic mode while addressing his subordinate staff may resort to theory X. However within few minutes he changes his stance and shifts to theory Y displaying a charismatic leadership style while addressing his customers or addressing a Public Relations issue. This example precisely proves how different styles of leadership can be exhibited by the same person on different occasions.

Indira Gandhi showed drastic fluctuations in leadership styles varying from autocratic / dictatorial to charismatic and participative leader. Indira Gandhi who declared emergency in 1975 and was the force behind ‘Operation Blue Star’ was found quoting a day before her assassination i.e. on 30th October 1984, Bhubaneswar, Orissa where she gave her last speech “I shall continue..."
to serve until my last breath and when I die, I can say, that every drop of my blood will invigorate India and strengthen it”.5

There can be variations in leadership styles within the family as well. Pandit Jwaharlal Nehru and Rajiv Gandhi were considered ‘soft leaders’ while Indira Gandhi was majorly perceived as a lady with an iron hand a la Sardar Patel or like gender personality viz. Margaret Thatcher.

Similarly the manager of a small factory who trains new machine operatives uses a bureaucratic style to ensure operatives know the procedures that achieve the right standards of product quality and enhance workplace safety. The same manager may adopt a more participative style of leadership when working on production line improvement with his or her team of supervisors.

In college environment also this trend is apparent, especially where a teacher may be very popular in the class but may resort to autocratic style during the examination because of the confidential and time bound nature of work (examination).

Leaders belong to different leadership styles. To illustrate, Adolf Hitler was notorious as autocratic leader. Mahatma Gandhi and Nelson Mandela may credibly be categorized as participative leaders. Narendra Modi and Ratan Tata are examples of charismatic leaders.

A person with transformational leadership style is a true leader who inspires his or her team with a shared vision of the future. Transformational leaders are highly visible, and spend a lot of time communicating. They don’t necessarily lead from the front, as they tend to delegate responsibility

amongst their teams. While their enthusiasm is often infectious, they need to be supported by "detail people". This is amply proved by the leadership style of Dr. Arun Sahay who was responsible for successful turnaround of Scooters India limited.6

In many organizations, leaders need to exhibit both transactional as well as transformational leadership styles from time to time. The transactional leaders (or managers) ensure that routine work is done reliably, while the transformational leaders look after initiatives that add value to rise above and beyond excellence. Because of their transformational leadership they develop many more transactional leaders for the smoother functioning of the organization.

A successful leader knows how to motivate his team members to achieve goal directed behaviour. The term "goal-directed behaviour" conventionally refers to either of the two distinct process types:

☞ Motor processes which refer to cognitive and motor elements that are collectively exercised in the production of actions and behaviour. E.g. Tata Group which stands for strong ethical orientation has always developed and nurtured leaders who practised ethics and ethical behaviour before they preached.

[6] Scooters India Ltd. (SIL) was established in the year 1972 by the Government of India as a public sector enterprise by importing old plant and machinery from a defunct automobile company in Italy. The company incurred losses ever since its inception so much so that at one point of time (in 1989-90), it made a loss of Rs. 404 million against a sale of Rs. 103 million. It had accumulated losses to the tune of Rs. 2125 million. The worker unions were agitating and fought pitched battle amongst themselves, against the management, and the government. The government almost made up its mind to wind up the company and appointed a new Chief Executive, Dr. Sahay, who pleaded against winding up and worked for the revival of the company. In 1992, the company got covered under BIFR which reinforced the government's stand that the company cannot survive. Undeterred, Dr. Sahay took up the challenge of turning around the company. After seven years of slogging, the company earned a net profit for the first time, in its silver jubilee year, breaking many myths in the process.

Decision making processes which select these targets, by concocting their desires for, and knowledge of, action outcomes. This conference comes across as an apt example of this decision making process which has evoked and encouraged participants to amalgamate their desire for rising above and beyond excellence.

A criterion for any action to be measured as goal-directed is that it has to be instrumental. Instrumental actions are characterised by two properties. First of all, instrumental actions are learned. Second, the action has to be controlled by the connecting relationship between the action or response (R) and its consequences or outcome (O), rather than being controlled by predictive relationships between environmental stimuli (S) and the outcome.

Similar to Skinner’s experiment wherein few rats learnt to jump out of the box after getting electric shock while some succumbed ‘to learned helplessness’ where they become so attuned to shock that they just stopped trying to avoid the electric shock and behave as if they are utterly helpless to change the situation. This trend is seen in the behaviour of personnel managers in 1970s and 1980s when ‘Trade Unionism’ was at its peak and Unions were perceived to be dominant, militant and aggressive. Labour laws were in favour of workers and most of the times dismissed employees were reinstated with full back wages. This discouraged personnel managers to dismiss employees. Instead they tried to keep away workers with nuisance value by nominating them to various programs, off field giving them ‘duty leave’.

In a way Indian economy also had to wait for economic crisis of 1991 to come out of its learned helplessness (licence raj, permit raj) over several decades.
In behaviourism the basic theory that governs all its other principles is that human behaviour is learned and hence can be unlearned and new modified behaviour can take its place. Another important part of it is that any behaviour is measurable and observable.

Learning occurs through association of stimulus-response and through rewards and punishment. Reward or positive reinforcement is an attractive object or subject supplied as a consequence of a particular behaviour. When a particular behaviour is rewarded, one is motivated to work on that behaviour and excel in it.

Motivation\(^8\) is derived from Latin word ‘movere’\(^9\) i.e. to move or be moved. It could be broadly defined as that which moves people to act. The whole


\(^8\)Motivation is the study of the intrapersonal processes which direct, activate and maintain behaviour (Green, Beatty and Arkin 1984 p 3).
motive of this conference was to move all the participants to rise above and beyond excellence. The HODs can take this message from the conference and pass it on to their respective departments. This in return would reflect their leadership styles and their individual level of motivation. They set goals for their department which are in line with the broader institutional goal and institutional goals in return are derived from VPM’s goals.

**Motivation** is a psychological feature that arouses an organism to act towards a desired goal and elicits, controls, and sustains certain goal-directed behaviours. It can be considered a driving force; a psychological one that compels or reinforces an action toward a desired goal. ([http://psychology.about.com/od/mindex/g/motivation-definition.htm](http://psychology.about.com/od/mindex/g/motivation-definition.htm)).

MOTIVATION: A study by Abdulsalam and Mawoli (2012) reveals the following:

“Analysis reveals that motivation exerts significant influence on teaching performance. The coefficient of determination (R²) = 0.234 shows that 23% of the variance in the teaching performance has been significantly explained by motivation. Put differently, other factors apart from staff motivation would most likely account for 77% of the variation in academic staff level of teaching performance. This finding concurs with the findings of Geofrey (2010) in Makerere University, where it was observed that motivational factors have a significant effect on lecturers’ teaching and research activities. This entails that the more staff are motivated, the more they are likely to attend to their classes, exhaust the lesson periods, read and correct students’ assignments and projects among others thereby ensuring the attainment of the University and national goal which is quality education to students. Studies conducted by Stevens and White (1987) show that improvement in teacher motivation has benefits for students and teachers. In Nigeria, the quality of education at all levels (primary school, secondary school and tertiary institutions) has long been adjudged as substandard, half-baked, and poor while the causes have been attributed to poor funding, overpopulation of students, inadequate and outdated infrastructures, and above all, poor remuneration and motivation of the academic staff (see: Mafiana, 2011; Ekundayo, and Ajayi, 2009; and Akinsanya, 2007). In essence, staff motivation being a strong determinant of staff contribution to teaching can be used as a weapon to reverse the declining standard of university education in the country.”


Exhibit 54: Study on Motivation
Following examples ample justify goal directed behaviour and team work. (Based on the picture and videos shown during the presentation).

**Water Rafting:**

It is very difficult to identify a leader in this picture. In fact, everybody is the leader. Even if one rower refuses to row, the boat may capsize and meet its tragic end. This holds true across organizations. It is not only the top management which rows, but a small contribution from each of the team member is important. Even the people at the bottom of the pyramid have their own, may be small, but important share of rowing. It is when all the stakeholders give their share that the organization reaches newer and better heights.

**Insect Kingdom:**

The advertisement shows the forgiven heist done for the sake of sharing the Coke happiness by all insects thus emphasizing the concept “*Coca Cola is for all*” and “*Share the happiness*”.

This video depicts very typical characteristic traits of the insects which is social know how. The whole of insect kingdom by its innate nature work in societies thus they have the social know how to adjust with one another and the willingness to adjust is ingrained in the insect world. They are aware of their strength as a team. The video is a very good example of teamwork among the insects. This shows co-ordination, teamwork, camaraderie, mutual trust amongst the living beings who cannot even talk. An amazing heist of Coca Cola bottle from a man during his nap in the park, done by a ladybird with the help of bees and locust insects is shown here. Role of each member in team is crucial and there is chain reaction. The core competency of each of the insect is put to its optimum use. The lady bird seen at the outset has the
fundamental role as its colour camouflages with the Coca Cola crown thus giving it free hand to carry out the task assigned to it. Taking into consideration it has two sets of wings, inner one being delicate and at par with other insects in the kingdom and the outer wings being tough. Hence the initial important task was assigned to the lady bird. Honey bees that follow next are known to be workers, always working together. They follow the law of physics by tilting the bottle and sliding it away. The grasshoppers play the role of watchdogs and the rhino beetle uses the strength of its horn to open the bottle. Even the butterfly which is given the task of distracting the boy has a small but an important role to play. The worm which pushes the bottle in water does it bit in the whole process. Other butterflies who fake the shape of coca cola bottle also perform their duty to the best of their ability. All the insects follow the relay of actions and accomplish the task. Finally the end results of the united effort are equally shared and enjoyed by all of them. The nature ultimately teaches us that once there is willingness to adjust, cooperate, co-exist, and appreciation of each other’s strengths we all can benefit and have a healthy pleasurable culture in ones organisation. Though the insects cannot communicate with each other but the willingness to work in team makes them successful in their goal accomplishment.

Amazing Choreography:

Here we see that team work, co-ordination, synchronization are at its best. The speed and accuracy with which various shapes are formed is amazing. Similarly the speed at which they are dismantled is truly commendable. Even if one link in the chain is broken the entire operation will fail and the dance will lose its charm. There is no hierarchy and each team player has to act as per predetermined sequence of events.

The important dimensions of management, which emerge from the video, are co-ordination, evolving strategy, planning, focus, passion, maintaining
momentum, synchronization, no errors / zero defects. In this video it is seen that there is no formal leader as such. In fact every team member is a leader unto himself / herself. It depicts an absolutely flat organizational structure, wherein each team member has to exhibit identical leadership qualities of and an \textit{ab initio} goal directed behaviour. Everyone must contribute their best and must meet the goal. Thus, making zero defect a built-in outcome of the performance. Each member is self motivated and the synergy displayed by the members is mutually contagious across the network of team members. This video also shows the importance of doing the right things at the right time at the right place in a right manner (movements, swings, co-ordinated twist and turns and all the actions and shifts that need to be performed in a decreasing response time). Thus, reflecting an unwritten but physically portrayed performance and action oriented, mutual co-existence. All the team members believe in mutual co-existence. There is only non-verbal communication among the team members...they do not talk to each other... but they are still successful in achieving their goal.

One common thing in all the above three visuals is that the goal is accomplished without any formal leader. They follow amoeba\textsuperscript{10} organization structure. Teamwork is mainly about situational leadership, letting the person with the relevant core competency for a situation take leadership that is say to play his / her role. This helps all the team players to pool together their core competencies and use them to the greater advantage of the team as a whole.

To pool in their core competencies/connect, they need not necessarily be next to each other. With the prowess of ICT today, the whole World can see an orchestra performance from home and the orchestra team may be spread

\textsuperscript{10}The definition of an amoeba is a one-celled organism, common in water and soil, possessing no set cell organs, structure, or defining shape. (\textbf{SOURCE}: http://www.yourdictionary.com/amoeba).
over the sprawling Universe viz.: Guitarist in London, drummer in New Orleans, Singer in Toronto, Live chorus in South Africa, Producer in Hollywood or Berkshire, keyboard player in Tokyo, Czech chamber orchestra in Czechoslovakia and the audience themselves in their respective homes all over the World.\textsuperscript{11}

The teaching profession can no longer remain immune to this revolution. The prowess of ICT has given freedom for the teacher and the learner to exchange knowledge without even meeting each other. The poem below says it all:

\begin{quote}
There Will Be A Road
It Will Not Connect Two Points
It Will Connect All Points
It's Speed Limit Will Be The Speed Of Light
It Will Not Go From Here To There
There Will Be No More There
We Will All Only Be Here.”\textsuperscript{12}
\end{quote}

This however increases the responsibilities of the Principals’ and HODs’ many fold. The Principals /HODs should have a fair idea about the employees needs vis-a-vis their competencies and their value system in order to predict the behaviour of the employees. Once this is ascertained, there is better clarity in goal setting on part of the Principals/HODs. This would help them to device a token economy mechanism. A token economy\textsuperscript{13} is an arrangement used for behaviour alteration based on the systematic reinforcement of target

\textsuperscript{11}See Dr. V. N. Bedekar Research Volume I, page xii.

\textsuperscript{12}\textbf{SOURCE}: 1994 Television, recited by Academy Award Winner Anna Paquin.

\textsuperscript{13}Nathan Azrin, Ph.D., Gordon Paul, Ph.D., Leonard Krasner, Ph.D., and Teodoro Ayllon, Ph.D. were the pioneers of token economy and token economies have helped to change and shape behaviours for many different types of patients. (\textbf{SOURCE}: http://ajp.psychiatryonline.org/article.aspx?articleID=174312, http://blog.difflearn.com/2013/04/17/4030/).
behaviour. The reinforcers provide symbols or tokens (stars) that can be exchanged for high value reinforcers. Token economy thus refers to reward-punishment mechanism for achieving/not achieving each milestone of goal in the process of goal directed behaviour. Token economy mechanism could be used to align the goals across departments and thus to broader organizational goals. There has to be a cascading effect of the goals from VPM to Principals’, to HODs’, teachers, non-teaching staff and even the students. Each stakeholder could work on the model of token economy, so that their achievements are quantified.

Motivation induces goal-directed behaviour. Higher the motivation, higher is the goal-directed behaviour. Significant literature on motivation revolves around goals and how an individual rates his chances of attaining his goals successfully. When individuals or groups are highly motivated to achieve their goals, the realization of such goals can lead to self-actualization.\textsuperscript{14}

\footnotesize{\textsuperscript{14}Self-actualization is the summit of Maslow’s motivation theory. It is about the quest of reaching one’s full potential as a person. Unlike lower level needs, this need is never fully satisfied; as one grows psychologically there are always new opportunities to continue to grow.

Self-actualized people tend to have motivators such as:

☞ Truth
☞ Justice
☞ Wisdom
☞ Meaning

Self-actualized persons have frequent occurrences of peak experiences, which are energized moments of profound happiness and harmony. According to Maslow, only a small percentage of the population reaches the level of self-actualization.}
Here a contrarian view is offered where the performance is enhanced due to the pressure. Numerous studies conducted across various situation and circumstances opine the similar findings.

“The same is seen in the book Clutch, by author Paul Sullivan who explores how and why some people crumble under intense professional pressure while others rise above the stress to exceed expectations. Is clutch performance innate — or can it be learned?

Sometime in life one encounters a situation in which the stakes are high and the eventual output is crucial. Many a times it is noted that the top performers succumb to pressure at times of extreme stress. Here we could consider the CEO who becomes extremely anxious in a desperate attempt to push up his company’s earnings, the veteran politician who grows overconfident and loses to the upstart candidate. Both of them choked. But then there are the performers who thrive under such conditions: the emergency room doctor racing the clock to save someone’s life, the lieutenant who leads his platoon to victory after an ambush, the young attorney who refuses to be intimidated in court and wins the crucial case.

According to Paul Sullivan, this is clutch performance and does not stem from an innate ability. It’s a learned skill: the art of operating in high-stress situations as if they were everyday conditions. Even some of the most experienced and talented performers lack this skill, but according to Sullivan anyone can develop it. Aptly based on the new research and interviews with stars across a range of fields he builds his case through many inspiring true stories, including those of

☞ A skinny sergeant who saved his battalion in Iraq;
☞ A rookie baseball player who pitched his team into its first World Series;
☞ An eccentric psychiatrist who trained a group of financial traders to become the best in the world; and
☞ A lawyer who struggled in school but became one of the top litigators in America.

This could be studied deeply so as to develop this attitude and learn how to excel in extreme pressure.”
Pivotal ingredient in this process of self-actualization is attitude and competence. Competence constitutes attitude, aptitude, skill and knowledge (aASK). It is believed that, hire for attitude and train for aptitude. Southwest airlines strongly believes in hire for attitude, train for skill. If the employees possess the right kind of attitude, they can be given training to enhance their aptitude, knowledge and sharpen their skills.

Organizations of current times tend to seek higher and higher levels of performance with a view to attain, maintain and sustain their competitive edge. It is in this context, performance and competence get their due importance and interrelationships. Performance is functionally related to attitude \((a)\) and competence \((C)\) which is a composite basket of traits viz. Aptitudes \((A)\), Skills \((S)\) and Knowledge \((K)\). Accordingly:

\[
P = a(ASK) \quad \text{and since } C = ASK, \quad P = a*C
\]

Traditionally, performance \((P)\) was perceived as a physical product of Will and Skill. In the enlarged and enlightened context, meaning of Skill, is

---

\(16\) Attitude - "A predisposition or a tendency to respond positively or negatively towards a certain idea, object, person, or situation." Attitude influences an individual's choice of action and responses to challenges, incentives, and rewards (together called stimuli). Organizations fail because of lack of desire, dedication, direction and discipline on the part of employees. Not all balloons go high in the air. Only those balloons filled with special gas go up in the air, not the ones filled with ordinary gas or nothing. Same principle applies to organizations. It is what is inside the organization that counts. That is attitude. People can be the biggest asset or the biggest liability for an organization. The success of an individual, organization or country depends on the quality of their human assets. People with positive attitude turn out to be better team players. This also helps to cut down waste, improve loyalty and make their company a great place to work. Three factors namely environment, experience and education determine an employee's attitude. In a positive environment, a marginal performer's output goes up. In a negative environment even a good performer's output goes down.

\(17\) Aptitude - Acquired or natural ability (usually measurable with aptitude tests), for learning and proficiency in a specific area or discipline. Aptitude is expressed in interest and is reflected in current performance which is expected to improve over time with training.

\(18\) Skill - The accomplishment of a given task measured against preset known standards of accuracy, completeness, cost and speed.

\(19\) Knowledge - Knowledge includes human faculty resulting from interpreted information; understanding that germinates from combination of data, information, experience and individual interpretation.
assumed to be synonymous with ASK. Competence, which includes ASK – is similar to Skill.

Again, Will as traditionally used, is synonymous with attitude (a) which is already defined. Thus performance even with the concept of skill and will, when revisited with the state of the art knowhow leads to the equation: 
P=a*C, where C=ASK\textsuperscript{20}

To conclude it can be said that goal directed behaviour is possible only when the attitude is positive and one displays higher degree of ASK. An individual should maintain the tempo of his march towards self-actualization with right amount of aASK.

The conference would be a true success only if participants can improve their learning curve by exhibiting goal directed behaviour and higher level of aASK on a sustained, ongoing basis. The challenge of leadership shall be in successfully sustaining the momentum of the organization. Thus the top management and leadership at the helm of VPM’s respective institutions could exert this matrix structure\textsuperscript{21} involving the attitude, skills, aptitude, the token economy, the various styles of leadership to ensure positive growth chart of VPM institutes to rise above and beyond excellence.

\textsuperscript{20}Competing Through Talent, Research Monograph, DR VN BRIMS Publication, 2012.

\textsuperscript{21}By its simplest definition the matrix is grid-like organizational structure that allows a company to address multiple business dimensions using multiple command structures. (\texttt{SOURCE: thematrixco.com/download/i/.../AT%20Kearny%20Matrix%20Article.pdf}).
The model to be visualized is as follows:

<table>
<thead>
<tr>
<th>Input</th>
<th>aASK</th>
<th>Results / Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Human Resources</td>
<td>• Leadership • Motivation • Token Economy • Training and Development • Organizational Structure • Work Environment</td>
<td>• Higher Productivity • High Performance</td>
</tr>
</tbody>
</table>

**Exhibit 56: Input - Output**

**TRAINING:**“Bartel (1994), reports that there is a positive correlation between effective training program and employee productivity, however to make it possible, (Swart et al., 2005), it is the responsibility of the managers to identify the factors that hinders training program effectiveness and should take necessary measures to neutralize their effect on employee performance. In addition, Ahmad and Bakar (2003), concluded that high level of employee commitment is achieved if training achieves learning outcomes and improves the performance, both on individual and organizational level. These findings are also consistent with the results of Kim (2006) research work.”


**Exhibit 57: The Effect of Training on Employee Performance**
Therefore further work on this model could generate a number of hypotheses; considering the strong foundation of regression coefficients, where in Regression Co-efficient refer to the change occurred in dependent variable on account of one unit change in the independent variable.
In an experiment, the independent variable is the variable that is varied or manipulated by the researcher, and the dependent variable is the response that is measured.

An independent variable (IV) is the presumed cause, whereas the dependent variable (DV) is the presumed effect.

The IV is the antecedent, whereas the DV is the consequent.

In experiments, the IV is the variable that is controlled and manipulated by the experimenter; whereas the DV is not manipulated, instead the DV is observed or measured for variation as a presumed result of the variation in the IV.

**SOURCE:** http://www.uncp.edu/home/collerw/ivdv.htm

Intermediate Variable/extraneous variable: It is a factor that is not itself under study but affects the measurement of the study variables or the examination of their relationships.

**SOURCE:** http://medical-dictionary.thefreedictionary.com/Dependent+and+independent+variables

---

**Exhibit 59: Dependent and Independent Variable**

**Regression Equation**

\[ Y^\hat{} = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 \]

*where,*  
*Y* = dependent variable (performance)  
\(a\) = constant (Human Resource)  
\(b_1, \ldots, b_n\) = regression coefficients  
\(X_1, \ldots, X_n\) = variables

*Y^\hat{}* is the estimated value of dependent variable, i.e. performance

**Exhibit 60: Regression Equation**

Thus it is seen in the above equation that a significant change in independent variable would bring about a corresponding change in dependent variable.

Thus the following hypotheses, considering that the quality of human resource is excellent (constant);
|   |   |  
|---|---|---|
| 1A | \(H_0\) | There is no significant relationship between leadership and performance. |
| 1B | \(H_1^*\) | There is a significant relationship between leadership and performance. |
| 2A | \(H_0\) | There is no significant relationship between motivation and performance. |
| 3A | \(H_0\) | There is no significant relationship between token economy and performance. |
| 4A | \(H_0\) | There is no significant relationship between training & development and performance. |
| 5A | \(H_0\) | There is no significant relationship between organizational structure and performance. |
| 6A | \(H_0\) | There is no significant relationship between work environment and performance. |

*NOTE: Similar alternate hypotheses can be developed for the remaining null hypothesis presented in table 2 (2A to 6A).*

Yet another extension of this study could be envisioned for further research and could be studied for discovering the correlation between leadership, motivation and organisational environment.
Following hypotheses could be explored as a part of the study:
Leadership being an independent variable it is assumed to be constant.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>$H_0$</td>
<td>There is no significant relationship between motivation and performance.</td>
</tr>
<tr>
<td>1B*</td>
<td>$H_1$</td>
<td>There is a significant relationship between motivation and performance.</td>
</tr>
<tr>
<td>2A</td>
<td>$H_0$</td>
<td>There is no significant relationship between training &amp; development and performance.</td>
</tr>
<tr>
<td>3A</td>
<td>$H_0$</td>
<td>There is no significant relationship between work environment and performance.</td>
</tr>
<tr>
<td>4A</td>
<td>$H_0$</td>
<td>There is no significant relationship between token economy and performance.</td>
</tr>
<tr>
<td>5A</td>
<td>$H_0$</td>
<td>There is no significant relationship between organizational structure and performance.</td>
</tr>
</tbody>
</table>

*NOTE: Similar alternate hypotheses can be developed for the remaining null hypothesis presented in table 2 (2A to 5A)
In the normal course duties of a teacher are limited to performance parameters measured in terms of quantity (teaching hours), cost (per lecture), delivery schedule and quality. However the dimension of Organizational Citizenship Behaviour (OCB) which is not the part of the said four dimensions also needs to be visited for inclusion. Arising from the discussion and subsequent interactions and library it was decided to make an effort to study the relationship between OCB and job satisfaction of teachers at VPM’s Group of Institutes. If VPM’s group of institutes have to rise above and beyond excellence, the teachers need to voluntarily rise above and beyond the call of routine duties; that is to say exhibit higher and higher level of OCB.

Null Hypothesis (H₀): There is no significant correlation between the two variables.

Alternate Hypothesis (H₁): There is a significant correlation between the two variables.

"You can't hit a target you cannot see, and you cannot see a target you do not have."

-Zig Ziglar

STOP PRESS
A questionnaire will be administered for the purpose. It consists of close ended questions administered on a five point Likert scale. The data will be subjected to further statistical analysis. The outcomes of the study will help to understand the level of OCB and job satisfaction amongst teachers. If the outcome is positive, we must definitely sustain the tempo. However if the outcomes are negative more and more efforts must be made to bring it to positive and eventually higher levels.

Organ (1988, 1997) defined OCB as being voluntary and discretionary behavior of individual organizational members that, in the aggregate, is expected to promote overall organizational efficacy. Five dimensions of OCB (Organ, 1988) are altruism, courtesy, conscientiousness, sportsmanship, and civic virtue.

According to Robbins (2003, p. 72), job satisfaction refers ‘to an individual’s general attitude toward his or her job’.

Minnesota Satisfaction Questionnaire Measures job satisfaction on 20 five-item scales:

<table>
<thead>
<tr>
<th>Ability Utilization</th>
<th>Co-workers</th>
<th>Moral Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>Creativity</td>
<td>Recognition</td>
</tr>
<tr>
<td>Activity</td>
<td>Independence</td>
<td>Responsibility</td>
</tr>
<tr>
<td>Advancement</td>
<td>Security</td>
<td>Supervision—Human Relations</td>
</tr>
<tr>
<td>Authority</td>
<td>Social Service</td>
<td>Supervision--Technical</td>
</tr>
<tr>
<td>Company Policies</td>
<td>Social Status</td>
<td>Variety</td>
</tr>
<tr>
<td>Compensation</td>
<td>Working Conditions</td>
<td></td>
</tr>
</tbody>
</table>
Acknowledgements

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vidya Prasarak Mandal, Thane Group of Institutions

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❖ K. G. Joshi College of Arts
❖ N. G. Bedekar College of Commerce
❖ VPM's TMC Law College
❖ Dr. V. N. Bedekar Institute of Management Studies
❖ VPM's Polytechnic
❖ VPM's Advanced Study Centre
❖ VPM's Polytechnic IT Centre
❖ VPM's Centre for Foreign Language Studies
❖ VPM's Department of Defence and Strategic Studies
❖ VPM's London Academy for Education and Research
❖ VPM’s Academy of International Education and Research
❖ VPM's Maharshi Parshuram College of Engineering
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