ISSN: 2348-1390

N E W M A N

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY STUDIES

VOL. 5 SPECIAL ISSUE 5 APRIL 2018

A REFEREED AND INDEXED E-JOURNAL

IMPACT FACTOR: 4.321 (IIJIF)

(UGC Approved Journal No. 45886)

Special issue on the Occasion of

National Seminar

on

Revised NAAC Framework: The Road Ahead Towards Excellence in Quality Education

Issue Editor

Dr.Y.Aparna

Associate Editors

Mrs.Srimathi Raghunandan

Dr.Kavitha Lal

Mrs V.V.V. Achutamba

Editor-in-Chief

Dr.Kalyan Gangarde

NEW MAN PUBLICATION

PARBHANI (MAHARASHTRA)

Contact: +91 9420079975 +91 9730721393 nmpublication@gmail.com

Full Journal Title:	NEW MAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY STUDIES
FREQUENCY:	MONTHLY
Language:	ENGLISH, HINDI, MARATHI
Journal Country/Territory:	INDIA
Publisher:	New Man Publication
Publisher Address:	New Man Publication Ramdasnagar, Parbhani -431401 Mob.0 9730721393
Subject Categories:	LANGUAGES, LITERATURE, HUMANITIES , SOCIAL SCIENCES & OTHER RELATED SUBJECTS
Start Year:	2014
Online ISSN:	2348-1390
UGC Approved Journal No.	**45886**
Impact Factor:	**4.321 (IIJIF)**
Indexing:	Currently the journal is indexed in: Directory of Research Journal Indexing (DRJI), International Impact Factor Services (IIFS) Google Scholar

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

Bhavan's Vivekananda College

of Science, Humanities & Commerce
Estd : 1993 - Affiliated to Osmania University
Autonomous College

Sainikpuri, Secunderabad – 500094

SILVER JUBILEE CELEBRATIONS

National Seminar
on
"Revised NAAC Framework: The Road Ahead Towards Excellence in Quality Education"
on
21st April 2018

Chief Patron

Shri. I Y R Krishna Rao, IAS (Retd.)

Chairman, BVB, Sainikpuri Kendra

Patron

Air. Cmde(Retd.) J.L.N. Sastry, VSM

Vice Chairman, BVB, Sainikpuri Kendra

Seminar Chairman

Prof. Y. Ashok

Principal

Seminar Convenor

Dr. K. Vasudeva Rao

Coordinator, IQAC

Co – Convenor

Mrs. K Suvarchala Rani

Deputy Coordinator, IQAC

ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

About the College

Bharatiya Vidya Bhavan was established in 1938 by Kulapathi Dr.K.M.Munshiji and since then it has successfully continued its scholastic journey. Bhavan's Vivekananda College began its scholastic service on 2nd August 1993 with an objective to impart knowledge while instilling human values in the students.

The college has a long standing record of pursuing a policy of excellence through a holistic approach to education. The college focuses on all-round development of students which includes, academics, co-curricular, extracurricular and sports with a vision to promote "Youth empowerment with culture, knowledge, strength of body and mind"

The college today with its sprawling campus, highly qualified faculty and impeccable infrastructure grooms numerous students and has been duly accredited with NAAC 'A' grade in the year 2012 and has also been conferred the Autonomous Status in the year 2015.

About the Seminar

This seminar is an endeavour to enhance the academic process with the help of the guidelines offered by the revised, ICT based NAAC framework that has been introduced since July 2007. The seminar will also contribute towards the understanding of the challenges present in the process of reaccreditation in the given revised NAAC framework. This opportunity would enable us to promote quality in the existing academic culture and also to develop the processes for attaining the intended outcomes while aiming for NAAC accreditation.

Themes

1. Objectives and Transparency: Hallmarks of ICT enabled NAAC Framework.
2. Quantitative Evaluation for Assured Quality Enhancement in Higher Education.
3. ICT based NAAC Framework – An initiative towards Green Practices.
4. Bridging the Industry – Academia Divide through Skill Based Learning.
5. Social Relevance of the NAAC Framework – "Gender Equity" in Higher Education.
6. NAAC Framework: The Road Ahead for Excellence in Education.
7. Any other topic related to the main theme of seminar.

CONTENTS

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

1.

USING FEEDBACK AS A TOOL TO DESIGN QUALITY CURRICULUM FOR UNDERGRADUATE EDUCATION

Nygi Mary Kurian*, D. Rajeshwari, Prerana Loomba, and Madhumita Bhattacharjee.
Department of Chemistry, Bhavan'sVivekanada College of Science Humanities & Commerce, Sainikpuri
* email: knygi@yahoo.in

Abstract:

Curriculum is the backbone of education at every level. Curricula of Higher Education should impart knowledge and skills to create a workforce capable of not just meeting the current market requirements but also shaping the future. Traditionally, the curriculum of college courses has been designed almost exclusively by academicians. Here we explore and analyze the views of various stakeholders—students, parents, alumni, and employers—in developing a dynamic and meaningful curriculum for a self-funded, private autonomous college. Volunteer responses were requested via Google Forms over a period of around 6 weeks from current students, alumni, parents, and subject-experts (prospective employers). We analyze the responses to two sample questions (one with binary answers and one with free text answers). We will discuss strategies for setting up institutional as well as departmental mechanisms to firstly solicit and gather responses from various target groups on a regular bases, and secondly, accommodate the specific suggestions from respondents while updating the curriculum.

Keywords: feedback, analysis, quality, curriculum, job-oriented.

Introduction:

Curriculum is one of the strongest metrics for assessing the quality of an educational program. The challenge for framing a curriculum for undergraduate education is two-fold: (a) provide a solid foundation of domain knowledge and skills, and (b) prepare the student for the demands of the current workforce and impart ability to meet the changing expectations from employers in the future.

Syllabus, the principal component of undergraduate curriculum, was traditionally framed a board of senior academicians from a University. This is especially true for non-professional undergraduate where the syllabus was a scholarly study of historic advances in the field. However, expectations from the syllabus are changing. While it may be argued that job-oriented training is not the primary goal of all undergraduate courses, it is also true that a vast majority of undergraduates from all streams enter the workforce directly. Hence, some degree of job-oriented content can strengthen the curriculum. Here we take an example of this aspect of the curriculum to evaluate the role of feedback from various stakeholders in designing a high-quality curriculum for undergraduate education.

Stakeholders in higher education:

Other than the student, other primary stakeholders in the product of higher education are parents and employers. Thus the views of students—present and past—should also find a place in curriculum design along with the expectations of parents and potential employers. These views can be solicited actively and regularly via the creation of a mechanism to record their experiences and suggestions. Here we are calling this mechanism “feedback”.

Almost all undergraduate colleges have a robust system to collect feedback from current students annually—or per semester—to evaluate individual teachers. Here we argue for the establishment of a formal feedback system to collect and incorporate feedback related to curriculum from various stakeholders.

How to collect feedback?

Before the advent of the internet, the only method to collect feedback was via personal contact (oral or written). This put constraints on obtaining feedback from individuals who are not in physical contact with the college authorities. Additionally, it might be difficult to ensure anonymity. Finally, it requires manual entry of the feedback to obtain a consolidated picture of the responses to the inquiry.

However, the advent of web-based surveys has made it possible to collect anonymous feedback from anyone with access to a data connection. Using this green technology, hundreds—or even thousands—of responses can be easily collected and

analyzed using suitable software. Here we describe our experiences with Google Forms to collect feedback regarding curriculum from various categories of stakeholders.

Methods:

Google Forms, a free web-based survey tool from Google, was used to create four different feedback forms in 2018. Questions for feedback were framed by the Committee of Curricular Aspects comprising staff members selected by the Principal of the college. Links to these forms were shared with students, alumni, and parents by all Class Teachers. Links for the forms for employers were sent to subject experts and contacts in Industry by Chairpersons of Board of Studies of all departments. Data collected over a period of 8 weeks (Feb-Mar, 2018) were analyzed using MS Excel.

Results:

From the survey questionnaire, here we have focused on only two questions related specifically to the curriculum: (a) Do you think the curriculum is adequately job-oriented (respondents had to select a Y/N option), and (b) What are your suggestions to improve the syllabus (free text answer).

Figure 1 shows the % of persons in each category who responded with "Yes" to the question whether that curriculum was job-oriented. Figure 2 shows the % of persons in each category who gave specific suggestions to improve the curriculum. Here we discuss these responses with a view to assess the power of the feedback system; we are not using these responses to judge the value of the program or recommend any action.

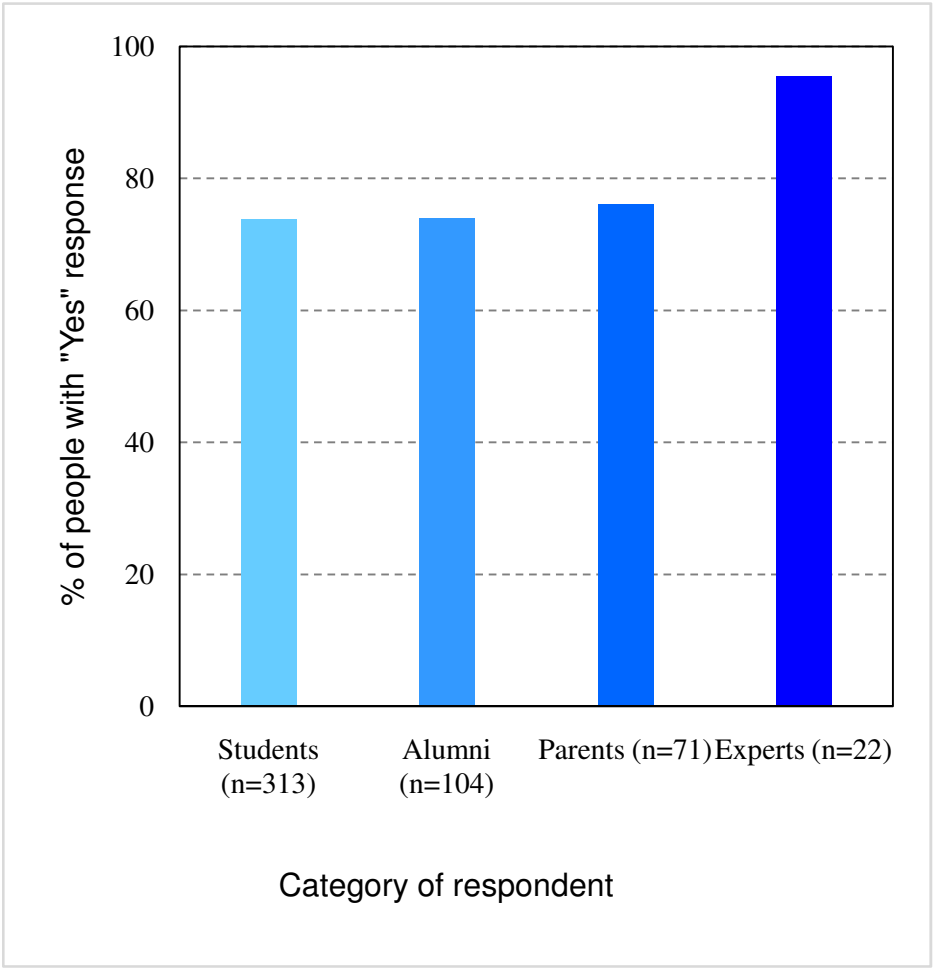


Figure 1: Stakeholders satisfied with job-oriented content of the curriculum.

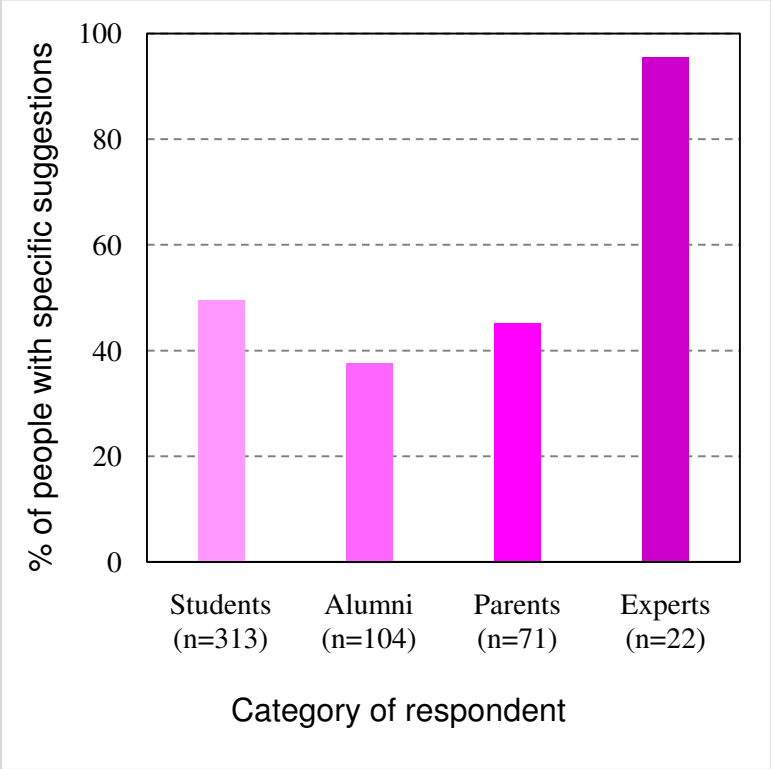


Figure 2: Stakeholders with specific suggestions to improve the curriculum.

In the case of first question, a simple yes/no response may not reflect the true strength of a curriculum—as in the present case where the majority did appear to commend the job-oriented design of the syllabus—because many of the responses to the second questions, where free text was allowed, stated that there was a paucity of placements in discipline-related positions as most of the campus recruitments were by multinational companies (presumably for call center type of jobs). These responses illustrate the need to design feedback forms which give more freedom to the respondent to elaborate their views.

Discussion:

Several factors become immediately evident upon a cursory glance at the results. Some of these factors are discussed below:

Coverage:

The college currently has around 2,500 undergraduate students. With only around 300 responses, the survey has not attained good coverage; only around 12% of the students have responded. We have not shown the stream-wise breakdown of the students (BBA, Commerce, BA, Life Sciences, and Physical Sciences), but it is clear that some mechanism should be adopted to get robust and proportional representation in the survey.

In addition, it might be useful to categorize the student responses based on the number of years the students have spent in the college. Often, newcomers may lack a mature perspective or experience to assess the curriculum and provide valuable suggestions. In this respect, one might argue that current students cannot judge the curriculum in terms of whether it is job-oriented. While this may be a valid observation, it is also true that a measure of the "job-value" of their curriculum may give confidence to the students in their investment in their courses.

The coverage of alumni is also low, with only around 100 respondents. In this case, over 50% of the alumni were from one particular stream (data not shown). This again emphasizes the need for a department-wise mechanism to obtain responses from alumni. It may be further valuable to categorize their responses based on (a) their employment sector, and (b) the number of years of experience. One point to keep in mind is that older alumni may

be responding based on their experience in the college and may not necessarily be aware of recent changes in the curriculum. In this respect, it might be valuable to ask them to list 3 top skills and/or knowledge domains that they consider most important for a career in their sector.

This consideration can be kept in mind while analyzing the feedback from parents. At present, the survey did not record the employment experience of the parents. Collecting such information may have an additional benefit that people with valuable experience in various sectors can be approached as subject-experts and requested to take a closer look at the curriculum of the relevant subject so as to provide subject-specific suggestions for improvement.

Finally, there is also a need to contact and involve more subject-experts in a department-wise manner. Here too, we observed a lack of representation of for some subjects. As the college grows in terms of numbers of courses, getting guidance from subject-experts can help in enhancing the quality of curriculum. This is especially true with the CBCS (Choice-Based Credit System) curriculum, where each department has the responsibility in designing and deploying subject-related core and skill courses. Subject-experts can not only provide insights into which topics and skills are in demand; they can also provide help in teaching particular topics. One example of such a collaboration between this college and a reputed research institution in this city is described by Bhattacharjee*et. al.* [1].

Design of feedback forms:

A single feedback form may not be optimum to obtain feedback about various subjects. In our analysis of the present feedback, we noticed that the respondents appeared to have one or few subjects in mind while providing feedback. Just as feedback is collected for each individual staff member in the college from each current student, collecting feedback for each subject, if not each paper—from some selected students, not all students—may provide valuable insights and allow for fine tuning of the curriculum. Hence, the feedback forms may be designed to have 2 sections—one general, and one stream-specific.

Another factor to consider is the timing of the feedback: should it be collected each semester or annually? Considering the vast amount of work entailed in creating, administrating, and analyzing the feedback forms, one may plan to collect the general feedback and stream-specific feedback at different times during the year.

Analysis and Action-taken:

Once feedback is collected, there is need for institutional as well as departmental mechanisms to analyze the feedback in terms of valid and viable suggestions. This analysis must then be considered in revising the curriculum formally (as in updating the syllabus) or informally (as in design of activities to cover a topic). The recommendations of the committees analyzing the feedback should also be taken into account when designing new CBCS courses.

Concluding remarks:

Contradicting the old adage “too many cooks spoil the broth”, we argue for a more inclusive approach to curriculum design. Giving importance to diverse viewpoints can help a college to identify and rectify potential weaknesses in the curriculum in an ongoing, timely manner. A strong mechanism for obtaining and analyzing the feedback will strengthen the design and implementation of curricular activities. Judicious use of modern technology (such as web-based surveys and automated analysis) can simplify the onerous task of collecting and collating thousands of responses. Finally, a systematic method documenting the input and correlation with action-taken reports will not only help the college to streamline its curriculum, it will also help in the application process for re-accreditation by NAAC.

References:

1. MadhumitaBhattacharjee, VidyaJonnalagadda,Mary Nygi Kurian, and PreranaLoomba. The CBCS system promotes and rewards collaboration between undergraduate colleges and research institutions, National Seminar on “Revised NAAC Framework: The road ahead towards excellence in quality education” held at Bhavan’s Vivekananda College, Sainikpuri, on April 21, 2018.

❑❑❑

2.

CITATIONS AND H INDEX AS KEY INDICATORS OF QUALITY RESEARCH

K. Anuradha and J. Sarada
Department of Microbiology, Bhavan's Vivekananda College, Sainikpuri, Telangana
Kauradha_7@yahoo.co.in
saradavenkatj@rediffmail.com

Abstract

Research and education are two strong elementary wheels on which any institution runs successfully. Most of the research carried out at various levels finally ends with communication to peer group through research publications. Following the policy of publish or perish, many researchers are communicating their research through various journals mostly to contribute for societal development, to earn credits and to strengthen their biodata.

Now a days there is an enormous increase in quantitative number of publications rather than quality. Research publication has also resulted in the growth of number of predatory commercial journals which assure publication of any manuscript rapidly at cost. This practice has diluted the quality in publications and resulted in a lucrative business for spurious journals and an easy way for desperate authors. As increasing number of faculty and students are falling prey to such spurious publishers, journals and other periodicals, there is need for evaluation of quality of research publication. Research publications not only carry substantial importance in subject knowledge but also in the faculty selection, promotions, increment and academic performance index (API). Good API scores are required for career advancement and promotions. Hence present scenario demands evaluation of quality of research for the assessment of performance by an individual researcher, institution or University level. Evaluation of quality research is carried by using bibliometric databases like Scopus, Web of Science, Google scholar and Indian citation index and scientometric techniques like citation index, and h index of individual authors or Institution. This paper provides an in depth knowledge about quality indicators and their importance in research evaluation.

Key words*:* citation index, h index and bibliometric databases

Introduction:

Research is always catering the human needs and is a tool for inquisitive human intelligence to explore nature. Researchers of various disciplines are being contributing to the growth of subject knowledge and also seek real world solutions through their innovations.Contemporary research in presentcommunity put strong emphasis on achieving 'impact'. Research programs and projects therefore aim to generate new knowledge and also promote and facilitate the use of research either to make change or solve problems and support innovation.Research and education are two strong elementary wheels on which any institution runs successfully. In research guidelines, criteria, or benchmarks are mandatory toplan, assess and evaluate research progress and accomplishments. Evaluation of research quality is indispensable to guide the projectfunding, management, ongoing development and advancement of projects and programs. Appropriate quality evaluation is essential to ensure that research receives support and funding and to guide and train researchers and managers to realize high-quality research.

Most of the research carried out at various levels like individual, institutional or at University level finally ends with communication to peer group through research publications. Many researchers are communicating their research through various journals mostly to contribute for societal development, to earn credits and alsoto strengthen their biodata.

With the introduction of various basic and applied fields of sciences, now a days there is an enormous increase in quantitative number of publications rather than quality. Research publication has also resulted in the growth of number of predatory commercial journals which assure publication of any manuscript rapidly at cost. This practice has diluted the quality in publications and resulted in a lucrative business for spurious journals and an easy way for desperate authors. As increasing number of faculty and students are falling prey to such spurious publishers, journals and other periodicals, there is need for evaluation of quality of research

publication. Research publications do carry substantial weightage in subject knowledge and also in the faculty recruitments, promotionsand upgradations, increment and academic performance index (API). Good API scores are required for career advancement and promotions. (Muthu Madhan,1-9)

Bibliometric indicators attempt to measure impact, visibility and quality of research output. The development of bibliometric indicators is an important method in evaluating performance of scientific research (Van Leeuwen et al.;335-346, Garfield, 363-369). These indicators mostly used to assess performance and influence of scientific research on the number of research articles (or publications) and citations (Moed, 13-18). Science policy makers, managers and funding agencies make policy decisions based on citation impact indicators. This paper provides an in depth review on Journal impact factor, (JIF), Citation index (CI) and h Index as quality indicators for research evaluation.

Journal impact Factor (JIF)

JIF is the ratio of citations in the current year to articles published in the journal in the previous 2 years divided by the number of the articles published in the same 2 years as described by (Garfield E 1-22; Sharma OP ,305-306). JIF measures the number of times an average paper in a particular journal has been referred to i.e. JIF is the citations of the articles published in a journal that describes the journal impact and author impact. Comparability of Journals is done by using the impact factor. Authors are inclined to submit their manuscripts to the journals with high impact factors as these journals referred by many researchers. The two-year impact factor andfive-year impact factor is published by Thomson Reuters for the journal every year. JIF influences the author to select quality journals for publications.

Citation index:

Researchers pointof view, citation impact indicators are key indicator of research excellence (Tijssen, 91-103). Some ofthe indicators used include: Number of publications, Number of citations, citations per document, highly cited papers, uncitedpublications, citations received by a publication from other publications.

The citation of a publication excluding selfcitationindicates recognition and is one of the key indicators of quality. Publications without citation indicates low quality or not worth citing. Citation index together with the impact factor of the journal is one of the effective methods of evaluation of research work.This key indicator plays an important role in granting awards, Distinctions, recognition and fellowships for individual researchers. National Assessment and Accreditation Council (NAAC) has also made these indicators mandatory for evaluation of departments, institutions and Universities. Evaluation of quality research is carried by using bibliometric databases like Scopus, Web of Science, Google scholar and Indian citation index and scientometric techniques like citation index, and h index of individual authors or Institution.

Bibliographic databases

Citation analysis is carried out by using important databases likeWeb of Science (WoS), Scopus, and Google Scholar. **Web of science** is a subscription-based database which has a number of citation indices like

- Science Citation Index(SCI) Expanded,
- Social Sciences Citation Index (SSCI),
- Arts & Humanities Citation Index(AHCI).

The above mentioned citationindices not only cover journals,books but also covers Conference Proceedings Citation Index and a Book Citation Index. WoS is owned by Thomson Reuters which is performing citationanalyses since many years. Another popular data base is **Scopus,** which is a subscription-based database owned by Elsevier.It covers journals and publications, book series and books, conference proceedings.

Google Scholar, a freely available data base was launched in 2004 and covers indexesof scholarly literature that is available online on the web. This includes journal publications, conference proceedings, books, theses, preprints, and technical reports. WoS and Scopus are used for both simple and advanced Citation analysis. Advanced citation analysis requires use of web based tools such as InCites and SciVal provided by Thomson Reuters based on Web of Science and by Elsevier based on Scopus respectively. Google scholar citation analysis is performed by usingsoftware tool publish or perish.

Bibliometric data bases indexed large number of journals for quantitative and qualitative analysis of research output. These databases have theirown merits and demerits, and therefore may provide a

distorted picture of quality of research performance if they are not used with caution. For example, research papers published in the natural and applied sciences may have more than those in humanities and social sciences. One needs to normalize the citation frequencies according to the research field, output and time factor.

Citations are known to be important asthey are used to rank journals based on the ISI impact factor and asa useful tool for establishing a relationship between papers, fields, authors or even journals (Jusoff, 23-29). Citation indices also act like a guideline in identifying which individual researchers or institutions should be granted awards i.e., Nobel Prizes to (Garfield, 359-375).

In the current age of information andtechnology, credible knowledge is necessary for nearly every decision one makes. Thus bibliometric databases with reliable information and metrics are the basis for science policy and strategic decision making in the world today. Citation indicators are used to support research assessment decisions by policy makers, science managers, and funding agencies (Costas & Bordons, 193-203).Citation impact indicators can even determine the level of research and progress of a particular country.

h-Index:

This is the most accurate quality indicator of scientific research and devised by J. E. Hirsch who called it h index .h-Index is calculated by using ''Find Your h-Index'' (http://library.gl.ciw.edu) on Web of Science or from the citations list in Google Scholar. A high value of h indicates a high quality of research. For example, if a scientist is rated to have h = 25, it means that 25 of his papers (iftotal of 50) were cited at least 25 times each. The remaining 25 were cited less than 25 times each [H Hirsch JE,16569–16572] High citations of publications in turn increases the JIF.

Research activity carried out in institutions by diversified group of researchers. With lot of variation in publishing and citing practices, it is open to discussion to evaluate research based on journal impact factor,citation and h index.Such evaluation process based on metrics is leading to controversies because the number of papers published is given more weightage rather to quality. Evaluation of performance in scientific research is not an easy task and earlierto thesemethods depended largely on peer opinion. With the availability of databases and scientometric techniques, quantitative indicators for research have gained importance. Consideration of the "Impact Factor" remains unavoidable but it is not a perfect metric because spurious agencies give fraud impact factors. In this context, San Francisco Declaration on Research Assessment (DORA) recommendation suggest for evaluating research performance focus should be on scientific content rather than publication metrics. The desperation to publish poor quality work in doubtful journals will bring in disgrace to individuals

The key indicators mentioned above play an important role and are used for sanctioning academy fellowships or awards which is an objective criterion rather than lobbying, networking and the culture of patronizing. Therefore, Young researchers and faculty should getacquainted with the quality indicators early in their scientific careers as research has become globalized and is highly competitive. A reputed journal always insists ethics in publishing and is indexed in reputed agencies like Scopus, Web of Science, Social Science Research Network(SSRN). Insteadof relying on single metric agency itis betterto rely on metrics reputed indexing / metrics agencies and databases.

In a situation where an institution may have performing departments with more number of cited papers and departments with few researchers with more number of cited papers, funding agencies believe that h index is measure of researchquality. In this circumstance will the individual researcher who contributes for the h index of a specific department gets the funding or the performing departments.Therefore, it requires a debate on the relevance of h index forsanctioning offunds. Way back in 1983, Garfield suggested that citation analysis is not the only one indicator but it becomes one of the key indicator among the other criteria involved in evaluation.

Conclusion:

The scientometric techniques like citation index, and h index of individual authors or Institution playing a vital role in evaluation of quality research, however evaluation procedures should also focus on originality, creativity and applicability of the research.

Aknowledgement:

Authors acknowledge the support and encouragements given by Bhavan's Vivekananda College.

References:

Costas, Rodrigo, and María Bordons. "The h-index: Advantages, limitations and its relation with other bibliometric indicators at the micro level." *Journal of informetrics* 1.3 (2007): 193-203.

Find your h-index. http://library.gl.ciw.edu/index.php?option= com_content&view=article&id=57&Itemid=170

Garfield, E. "The Agony and the Ecstasy–the History and the Meaning of the Journal Impact Factor. Report at the Fifth International Congress on Peer Review in Biomedical Publication." (2005).

Garfield, Eugene. "Is citation analysis a legitimate evaluation tool?" *Scientometrics* 1.4 (1979): 359-375.

Garfield, Eugene. "The meaning of the impact factor." *International Journal of Clinical and Health Psychology* 3.2 (2003).

Hirsch, Jorge E. "An index to quantify an individual's scientific research output." *Proceedings of the National academy of Sciences of the United States of America* 102.46 (2005): 16569.

Jusoff, HjKamaruzaman. "In search of best impact factor and citation indexed journals towards achieving the goals of universities." *Journal of Biochemical Technology* 1.1 (2008): 23-29.

Madhan, Muthu, SubbiahGunasekaran, and SubbiahArunachalam. "Evaluation of research in India–are we doing it right?" (2018)

Moed, Henk F. "New developments in the use of citation analysis in research evaluation." *Archivumimmunologiae et therapiaeexperimentalis* 57.1 (2009): 13.

Sharma, Om P. "Quality indicators of scientific research." *Indian journal of microbiology* 52.2 (2012): 305-306

Thomson Reuters. 2011. Thomson Reuters' Web of Science. Available at: http://thomsonreuters.com. Accessed on 24 February 2014

Tijssen, Robert JW. "Scoreboards of research excellence." *Research Evaluation* 12.2 (2003): 91-103.

Van Leeuwen, Thed N., et al. "Language biases in the coverage of the Science Citation Index and its consequencesfor international comparisons of national research performance." *Scientometrics* 51.1 (2001): 335-346.

❑❑❑

3.

ICT AND SKILL-BASED LEARNING IN HIGHER EDUCATION

Ms Jacintha Vincent [1]
HoD B.Com Computers

Mr N Anil Kumar [2]
HoD B.Com International Accounting and Finance

[1&2] Loyola Academy Degree & PG College
Alwal, Secunderabad 500010
anilloyolaacademy@gmail.com

Abstract

Assessment is an integral part of higher education institutions to measure the effectiveness of an institution being able to maintain quality and adapt strategies to sustain it. Feedback in terms of self assessment and peer assessment is vital in creating a road map for the future. ICT and skill-based learning fosters a conducive environment for participatory learning, thereby increasing the employability of the students. Student engagement ensures that there is consistent improvement in the teaching-learning process. The success of an institution depends on how it is able to meet the growing demands of its student stakeholders by providing them an environment that caters to holistic development of a student and contribute to nation building. The hallmark of higher education should focus more on bridging the gap between the academia and the industry, by making its students industry ready and to have an edge over other competitors, by instilling in its students that learning is a continuous process and does not stop after the student finds suitable employment.

Keywords: ICT, skill-based learning, student engagement

Introduction

Higher Education in India is one of the largest in the world. It is seen as one of ways to ensure upward social mobility. It provides an avenue where students enroll to seek knowledge. In their quest for knowledge it is imperative to understand whether the education focuses merely on imparting knowledge or that if it is a place where the young minds are nurtured in such a way that they are ready to apply the knowledge in the real world. According to the All India Survey on Higher Education (AISHE) 2015-16, total enrolment in higher education has been estimated to be 34.6 million, with the Gross Enrolment Ratio (GER) being 24.5%, which is calculated for 18-23 years of age group and it is expected to rise up to 30% by 2020. At undergraduate level the highest number (40%) of students enrolled in Arts/Humanities/Social Sciences courses followed by Science (16%), Engineering and Technology (15.6%) and Commerce (14.1%). India has a demographic advantage over other countries as 75% of its population falls in the age group of 15-59 years. And as per estimates, by 2030 there would be more than 150 million in the college going age group and with one billion working population by the year 2050. It is evident that the growth of a nation depends on the contribution of education in generating employable graduates leading to socio-economic development of both the individual as well as the society.

Need for the study

Every year there are more and more graduates coming out of educational institutions armed with a degree, but the number of students who are actually employed, excluding those who pursue further studies is really alarming. This is because of the gap that exists between what is taught and what is actually applied when it comes to employment. There is a growing need to start working towards developing holistic education that caters to both imparting knowledge and working towards increasing the employability opportunities of students. Assessing the individual needs and mapping it with the curriculum is the first step towards providing holistic education. Most of the students enroll for higher education to get a good job and dream of a bright future. At present only 25% of the graduates are employable. Hence there is a dire need to focus on three important areas of higher education, namely quality, affordability and maintaining ethics in the education system. Most often than not, there has been more importance given to increasing the number of educational institutions rather than focusing on its main stakeholder - the student. Institutional assessment is mandatory to know the quality of education that is

offered and to make it as a centre for excellence. Autonomous body like National Assessment and Accreditation Council (NAAC) clearly defines this in its vision "to make quality as a defining element in higher education".

The methodology to offer holistic development of a student should mainly focus on how to improve participatory learning among students through student engagement, role of ICT and skill-based learning.

Student Engagement

Student Engagement can be defined as the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education. It is built on the premise that learning automatically improves when the student shows interest in acquiring knowledge or skill. Disinterest automatically alienates students from the learning process and hence they get disengaged in their learning. Although student engagement may seem a simple concept yet when it is actually applied, it may take any of the following forms:

Managerial Engagement makes the student part of the system by being actively involved in the admission process where the student as counselors can be the best ambassadors for the courses offered. Other involvements can be in formation of clubs, student council and setting up and managing various committees to disseminate information, take up grievances etc.

Intellectual Engagement aims at kindling the inert potential of the student by giving then assignments or projects, which can be undertaken by the student individually or in pairs or even small groups. This enables the student to understand the relevance of the study and to develop cognitive and analytical skills.

Emotional Engagement seeks to promote positive emotions in students through counselling and mentoring and helps to create a conducive environment for active learning, leaving aside negativity and strengthens the bond among their peers and with their educators as well,

Physical Engagement seeks to conduct small physical activities of a short term duration wherein the student may be asked to come up to the board and explain - taking the role of the teacher. It has often been observed that this type of activity has a lasting impact on the student and the concept is retained in memory for days to come. Other physical activities can be to have a small break for relaxation with quick exercises or meditation etc. to relax the student lest they get bored listening to a long lecture.

Social Engagement enables the student to work in groups among their peers for undertaking projects, assignments or any other activity be it for academics or for co-curricular activities to foster participatory learning. An orientation day can be conducted to disseminate the various rudiments of the education system.

Cultural Engagement moulds a student to work amicably with their peer group as the students come from diverse cultural background. They are taught how to behave, react, live peacefully amidst widespread student diversity. Ethnic day can be celebrated to bring alive the essence of the rich heritage of various cultures.

The primary concept of student engagement typically arises when educators discuss or prioritize educational strategies and teaching techniques that address the developmental, intellectual, emotional, behavioral, physical, and social factors that either enhance or undermine learning for students.

Role of ICT in providing holistic education

ICT has become a popular tool for imparting knowledge, and teachers have to be well prepared to design attractive interactive modules to increase the learning quotient of the student. ICT is touted as following a top-down approach from the teacher to the student at the receiving end. Teaching and learning are no longer treated as separate functions, but they are actually different roles played by both the teacher and the student as sometimes the teacher becomes a student to know whether the tool used conveys the much needed information and the student is able to understand the concept easily. Hence, the teacher through effective ICT tools is able to show the student how creativity, logistics, technical skills, organizing and collaborating skills can become great means of applying his/her knowledge.

Skills-based learning

Skills-based learning provides an environment where students are taught to be independent, increase their thinking process, collaborate and engage themselves in active learning. This leads to competency-based learning that begins by identifying specific competencies or skills, and enables learners to develop their individual competency or skill at their own pace, usually

mentored by the teacher. The outcome of competency-based learning enables the students to identify their strengths and weaknesses and how to convert the weaknesses into opportunities.

Skill-based learning should be introduced in the curriculum to increase the employability of the graduates. Under the Choice-Based Credit System (CBCS) UGC has laid guidelines to offer subjects that increases the skills of the students and it is rightly coined as Skill-Enhancement Course (SEC). Apart from this a number of certificate courses are also offered as extra credits for the students.

A Case Study on Compulsory Skill Based Certificate Courses at Loyola Academy

As part of the acquiring the Degree from the academic year 2016-17 onwards Compulsory Skill Based Certificate Courses have been introduced. Every student has to complete at-least two certificate courses and each certificate course has one credit which is not computed for SGPA. In the first year around 28 courses were offered to the students and the success rate was 98% .

In the current year 2017-18 one certificate course are been offered in odd and even semester. In the odd semester the students opted for 26 courses and in the even semester 23 courses. These courses are delivered by both internal and external faculties usually from the Industry.

The following is the list of some of the certificate courses offered:

i. Entrepreneurship Development
ii. Organizational Behavior
iii. Fashion Designing
iv. Self Defense
v. Music
vi. Dance [Indian & Western]
vii. Communication Skills
viii. Leadership
ix. Yoga
x. Event Management
xi. Fabric Painting
xii. Photography
xiii. Graphic Designing
xiv. Interior Designing
xv. Horticulture
xvi. Jewelry Designing
xvii. Calligraphy
xviii. Theater Arts
xix. Indoor and Outdoor Sports & Games
xx. Classical Singing
xxi. Psychology
xxii. Food and Bakery Science
xxiii. Nutrition for Health
xxiv. Foreign Languages

After undergoing the above skill based certificate courses the students can apply for loans to start their own business, upgrade their skills and also be employable.

Government Initiatives To Increase Employability

Some of the measures that can be adopted

by Higher Education Institutions:

- Balancing theory and practical is vital to make the student understand how both complement each other in imparting knowledge. First clear instructions have to be given about the concept and then demonstrate its use practically, and later ask the student to do it independently.
- Aptitude tests can be conducted to garner how efficiently a student is able to apply his/her problem-solving skills. Mock interviews can be conducted to instill confidence in the student.
- Technical skills of the students should be enhanced and the student should be able to take up other courses in the same area. For example if a student has acquired the programming skills, then he/she should take other such courses outside the curriculum to keep abreast with industry requirements.
- Activity based assignments have to given to the students so that they are able to think critically, develop note-making skills, making presentations and manage time effectively.
- Role plays, Group discussions, Situational Reaction tests should be conducted to make the student think out of the box and to come up with possible solutions.
- The student should take up project work to enhance their analytical skills and be able to explore their theoretical knowledge practically since the technical round in interview focuses on the individual level of comprehension and ability to take up something new.
- The student should develop positive attitude to understand that learning does not stop in the classroom, rather they should be ready to imbibe new skills to adapt to the ever changing demands of the industry.
- The student should be attentive, humble and respectful as these qualities go a long way in establishing themselves in the industry by earning their trust and mutual respect for others.
- Subjects like Value Education and Work Ethics should be part of the curriculum as it instills qualities like honesty, loyalty, dependability and concern for others.
- Short term courses on Leadership, Team-building, Goal-setting, Personality Development and Communication skills should be introduced to help the student gain a foothold in the industry.
- Seminars and workshops should be conducted regularly by calling industry experts to address the students on the working of the industry, skills required and also to be connected with the real time world.
- Refresher courses should be arranged not only for the faculty but also for the students.

Problems In Quality Of Teaching And Learning

The quality of a teacher has a lasting impact on the student. The quality of teaching and learning in giving assignments, evaluation and the knowledge gained is widely debatable. The curriculum focuses more on the grading system and the marks obtained. This creates a hurdle in identifying the student who has the right skill set and knowledge.

Issues regarding poorly qualified teachers, teachers who have opted for teaching as an easy alternative, before they get the right job lead to less commitment and dedication, thereby becoming a threat to the teaching profession with their absenteeism and lack luster performance.

Gender equality is another major hurdle as sexual harassment with the archaic notion of jobs being segregated for male and female gender has an emotional impact on the student which may lead to developing a low self-esteem about themselves, which ultimately reflects on their performance even if they have the potential to do otherwise.

Conclusion

Administering the grading system is not necessarily the final decision maker for employment. In the sense that a student who scores a very high grade need not necessarily land a job, as they may lack good communication skills and may not be able to sound confident and bright at the time of interview. We need to move

ahead of marks and grades it and see to what extent that the knowledge that has been imparted within the classroom education has made a lasting impact on the student and how the student is able to think critically, analyze and apply the knowledge gained during placement. The academic curriculum should be structured not only on single discipline specialization; rather it should be strengthened to include inter-disciplinary subjects, skill-based subjects and certificate courses. All these put together provides holistic education and increases the employability of students.

References:

1) Timothy Hill, Laku Chidambaram and Jama D. Summers, Playing 'catch up' with blended learning: performance impacts of augmenting classroom instruction with online learning, *Behaviour & Information Technology*, (1)
2) Evelyn Chiyevo Garwe, (2015) "Student voice and quality enhancement in higher education", Journal of Applied Research in Higher Education, Vol. 7 Issue: 2, pp.385-399, https://doi.org/10.1108/JARHE-05-2014-0055
3) Impacts of ICT in education. The role of the teacher and teacher training.-A.K. Jager and A.H. Lokman Stoas Research, Wageningen, The Netherlands
4) Paper Presented at the European Conference on Educational Research, Lahti, Finland 22 - 25 September 1999
5) http://aishe.nic.in/aishe/viewDocument.action;jsessionid=449730815C8D424601A198E7C9266E4F?documentId=227
6) https://www.thinkingclassroom.co.uk/thinkingclassroom/skillsbasedlearning.aspx
7) https://www.edglossary.org/student-engagement/
8) http://www.nationalskillsnetwork.in/government-of-india/
9) https://opentextbc.ca/teachinginadigitalage/chapter/6-6-competency-based-learning/
10) https://www.nap.edu/read/12771/chapter/8#71
11) https://www.heacademy.ac.uk/individuals/strategic-priorities
12) http://www.leeds.ac.uk/educol/documents/00001201.htm

❑❑❑

4.

GENDER EQUITY IN CONTEXT OF NAAC RE-ACCREDITATION

Aparna Yamarthi* and Vidya Jonnalagadda
Department of Microbiology,
Bhavan's Vivekananda College of Science, Humanities, and Commerce,
Sainikpuri, Secunderabad.
*email: aparna_y.micro@bhavansvc.org

Abstract:
One of the metrics used by NAAC (National Assessment and Accreditation Council) in re-accreditation of autonomous colleges is Gender Equity. This may be a relatively new topic for most faculty membersif was not a factor that was commonly addressed during their student days. Hence, it may be a difficult matter to accurately understand and express what it means. It may also be a challenge to differentiate gender equity from gender sensitization and educate students about this concept in absence of authentic expert trainers for this subject. Here we discuss what gender equity means to a cross-section of the faculty of our college (a co-educational institute offering undergraduate and post-graduate degrees in Humanities, Science, and Commerce) and try to assess how lack of clarity about this topic may affect the classroom.Finally, we propose measures that may be effective in fostering equity in all activities on a college campus.

Introduction:

The impetus for this study came from the experience from one of us in preparing documentation for reaccreditation of a college (self-financed, co-educational, autonomous college offering undergraduate and post-graduate degrees in Science, Humanities, and Commerce) by NAAC (National Assessment and Accreditation Council).

In section 7.1 on "Institutional Values and Social Responsibilities" of the re-accreditation process for autonomous colleges, a total of 10 out of 50 marks is assigned to "Gender Equity"(Figure 1). To earn points under this section, the applicant has to list the programs undertaken to promote gender equity as well as gender-wise participation in the programs (max. 5 marks).

Criterion VII – Institutional Values and Best Practices (100)

Key Indicator - 7.1 Institutional Values and Social Responsibilities(50)

Metric No.		Weightage
	Gender Equity (10)	
7.1.1 QnM	***Number of gender equity promotion Programmes organized by the institution during the last five years*** 7.1.1.1: Number of gender equity promotion Programmes organized by the institution year wise during last five years **Year** | | | | | | **Number** | | | | | | Data Requirement: (As per Data Template in Section B) • Title of the programme • Duration (from-to) • Number of participants **File Description** • Report of the event • Upload any additional information • List of gender equity promotion Programmes organized by the institution(Data Template)	5

Figure 1: Screenshot of NAAC guidelines for application for re-accreditation (taken from the document titled RAF_Autonomous_Institution_Manual fromwww.naac.gov.in.)

We undertook this study to firstly understand which programs may meet the criteria for Gender Equity, and secondly to give suggestions on programs that can foster not just gender equity but general equity inside and outside the classroom.

Methods:

We designed and deployed an online survey (Google Form) to understand the perceptions of our colleagues towards gender equity and related issues. Respondents were asked only about their gender and years of experience (under or above 10 years; the college is 25 years-old). For each question, respondents had to select one of 3 or 4 options (no free text answers were recorded).

Sample selection: The college has a total faculty strength of 117, of which a majority (91 individuals; 78%) are female. It offers courses in 5 streams: Commerce, Humanities, Management, Life Sciences, and Physical Sciences. Care was taken to include faculty from all streams and both genders.

Data analysis: Data were analyzed using MS Excel.

Results and Discussion:

Profile of respondents: A total of 33 responses were analyzed, which represents a fair cross-section of the faculty (around 28%). Table 1 shows the profile of respondents.

Table 1: Profile of respondents

	Senior (>10 years of service)	Junior (<10 years of service)	Total
Female	20	8	28
Male	4	1	5
Total	24	9	33

Each respondent was asked 8 questions related to gender equity and equality.

Discrimination between genderequity and equality

NAAC was established in 1994. Prior to the accreditation process, Gender Equity may not have been given much consideration in college education. Therefore, people who completed their education before accreditation by NAAC came into effect, or those who graduated from institutions not accredited by NAAC, may not be familiar with the tenets of Gender Equity.

We asked our respondents when they first became familiar with Gender Equity. As shown in Figure 2, only around 50% of the respondents had learned about this matter during their student days. On the other hand, very few had not yet heard of this term; others had heard about it either as employees or during their work for accreditation-related documentation.

Table 2: Response to question "When did you first hear about Gender Equity"?

Response	Number of respondents
During my student days	16
As an employee (not in context of NAAC)	6
While preparing documents for NAAC	9
Haven't heard about it until now	2
Total	33

When asked if they could define Gender Equity and Gender Equality, most of the responses were affirmative (Table 3).

Table 3: Response to question "Can you define __"?

Response	Gender Equity	Gender equality
Yes (with confidence)	27	25
Maybe (not very sure)	5	8
No	1	0
Total	33	33

However, when asked how gender equity was related to gender equality, we found a lack of broad consensus among the respondents (Table 4). Almost half of the respondents felt gender equity and gender equality were unrelated and distinct while the other half felt they were related concepts with some degree of overlap.

Table 4: Response to question "What is the difference between 'Gender Equity' and 'Gender Equality'"?

Response	Number of respondents
They are two completely different things	14
They are related; some aspects are common but others are same	18
They are almost or entirely the same (difference, if any, is negligible)	1
Total	33

We do not wish to be critical of these different viewpoints; our observation is simply that people who feel they know what gender equity and equality mean may not agree whether they describe similar or different concepts. Given this almost even split in our respondents, it is fair to assume that this lack of agreement may be a factor when it comes to designing programs to promote gender equity.

Programs to promote equity

A number of programs have been undertaken by autonomous and affiliated colleges to promote Gender Equity and/or Women's Empowerment. Table 5 provides a brief outline of three such programs.

Table 5: Programs to promote Gender Equity	
Program Name	Outline of activities
Self-defence Workshop	Girls are given training in physical fitness and defense against attackers.
Pinkathon	Marathon to support/promote Women's Empowerment.
Orange Day	Lectures and pledges to end violence against women, information about legal measures available to punish abusers.

In addition to these programs, where participation is voluntary, all undergraduate students of the college under study have to take a mandatory course on Gender Sensitization in their 2nd semester. Of the faculty who participated in our survey, no one was actually teaching this course, but over 50% (18 of 33) were familiar with the syllabus.

Managing equity in the classroom and staffroom

While students are required to attend and pass the course on Gender Sensitization, faculty are not. Would it be beneficial to the students if the faculty were provided some formal training related to gender-related issues? To know how faculty responds to diversity in the student body, we asked them how they address gender equity in their classroom (Table 6).

Table 6: Response to question "How do you address 'Gender Equity' in your classroom"?	
Response	Number of respondents
I try to treat all students equally	17
I try to be fair to all students (case-by-case basis)	13
I try to make gender-specific concessions	2
Yes, I am conscious of it in almost every class	1
Total	33

Of the 4 options provided, most (17/33) selected an option that indicates equality-based approach—that they try to treat everyone equally, which, in light of other options available in this context, means that they do not make special concessions for anyone (regardless of gender). In addition, around 40%

(13/33) replied thatthey treat student based on their particular case, again indicating a fairly gender-blind approach. Only 6% (2/33) tried to apply gender equity or remain aware or equity issues (1/33) but (presumably) do not take action based on these issues. Again, we wish to emphasize that it is not our intention to endorse or blame any particular approach; we explored this question only to understand how gender equity may influence the interaction between faculty and students.

Finally, we asked our respondents about how considerations of gender equity affect their interaction with their colleagues. As shown in Table 7, most respondents stated that gender equity is not discussed frequently or routinely in such interactions. Here too, we do not make any judgment regarding whether or not this is a good practice, but we do note that gender equity may not be a prime factor in interactions with colleagues.

Table 7: Response to statement "In interactions with your colleagues, 'Gender Equity' a factor that __ "	
Response	Number of respondents
Management / colleagues are conscious about (comes up at least once a week)	4
Is discussed on special occasions (like Women's Day)	17
Is rarely, if ever, discussed	12
Total	33

Concluding remarks

There is no doubt that men and women all over the world face different challenges and expectations from family and society. Being aware of the unfair attitudes or practices can help each of us to

identifythe obstacles that people face in trying to realize their true potential in academic and social realms.

However, while there is gender-based discrimination against women, there are also factors unrelated to gender and discrimination that contribute to poor achievement by students. In this context, it is important that faculty appreciate the difference between equity (defined as *something that is fair and just*) and equality (defined as *something that is identical in quantity, degree, value, rank, or ability*).

As depicted in Figure 2, all students are not equal in terms of their abilities to accomplish a given goal. Equal treatment to all would help some, but not all, to accomplish the goal. In other words, equal treatment does not differentiate between the different degrees of handicap experienced by individual students. However, equitable treatment would mean providing personalized assistance so as to enable all to accomplish the goal.

In simpler terms, equal treatment is focused on giving identical input to all students and not withhold something (which would be discrimination), but equitable treatment is focused on how much is achieved by the students so as to facilitate graded input to be provided by the teacher. Providing equity requires a lot more investment from the teacher—not in terms of providing extra but equal inputs to all, but in becoming aware of the factors hindering weak students and devising appropriate measures to overcome these factors. While difficult, providing equitable treatment to students can be achieved by concerted efforts of a team of members, such as all members of a department. This may be in the form of relaxed deadlines for assignments, foundation courses or extra coaching, and assigning other tasks based on existing capabilities of the students.

In this context, we would like to assess the impact of programs that are commonly used to promote gender equity. We humbly submit that it may not be enough to design activities for students alone: there may be some value in designing programs for the faculty as well. We also submit that there is a need to go beyond programs that deliver lectures and encourage pledges to address the issue of equity; there may be great impact of activities such as (1) presentation and analyses of (real or fictional) case studies describing failures as well as successes of particular individuals, (2) role play or skits, where a problematic situation is portrayed but no solution is provided and the students are asked to propose interventions to provide equity, and (3) creating an environment where students are asked to reflect on factors impeding their own growth and seek possible interventions from their peers and supportive elders.

Finally, we would like to observe that NAAC can accomplish their goal of promoting gender (and other) equity by showcasing programs that have been shown to be effective in college settings. This may motivate all applicant colleges to duplicate and customize the effective programs and activities. We see a greater role for NAAC in this regard: instead of merely assessing the programs and awarding points to applicant colleges, NAAC can show the path to foster equity on college campuses, which, incidentally, also fetchesa college points in the accreditation program.

Acknowledgments:We express deep gratitude to all our colleagues who took part in our survey. Without their participation, we could not have made this analysis.

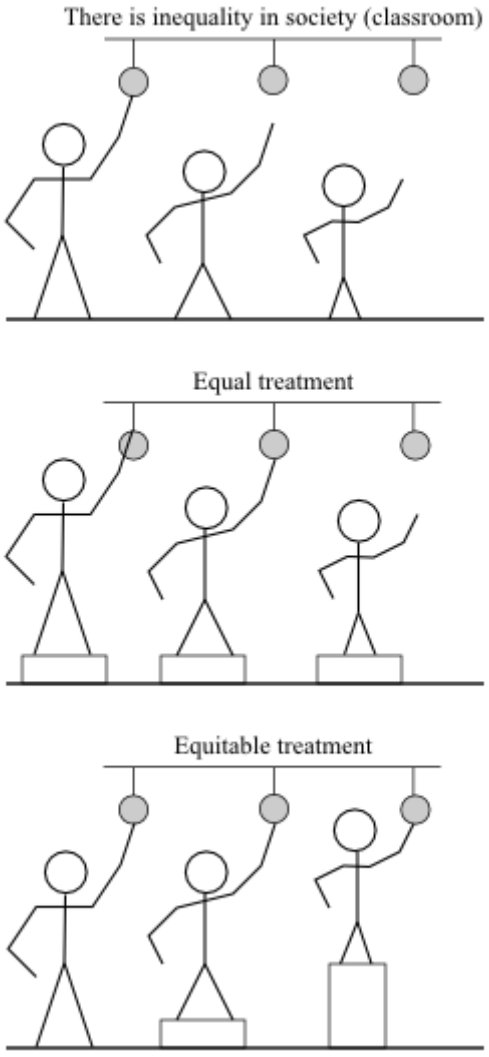


Figure 2: Pictorial depiction of equality and equity in students aiming to reach the same goal.

❑❑❑

5.

ROLE OF IQAC IN REVISED ACCREDITATION FRAMEWORK: CHALLENGES, OPPORTUNITIES AND SUGGESTIONS

Mrs. M. Suvarchala Rani[1]
Lecturer, Department of Management Studies,
Bhavan's Vivekananda College
skorapole@yahoo.com
9177554053

Prof. Y. Ashok[2]
Principal,
Bhavan's Vivekananda College principal@bhavansvc.org
9866037201

Dr. K. Vasudeva Rao[3]
Head, Department of Mathematics and Statistics,
Bhavan's Vivekananda College
drrao.hod.maths@bhavansvc.org
8106301941

Abstract
Quality being an important element in various higher educational institutions in India, National Accreditation and Assessment Framework (NAAC) has come up with the revised assessment and accreditation framework that shows a significant shift in the format when compared to the previous one.There has been a paradigm shift to ICT enabled, with increased quantitative, transparency, objectivity and robust. The main aim is to develop the nation through a universally accepted competitive higher education system.The institutional Internal Quality Assurance Cell (IQAC) is therefore considered to be the main force in improving and assuring quality education. Because of the dynamic changes in the revised assessment and accreditation framework, institutional IQAC role has been increased manifold. The present paper examines the perceptions of select autonomous colleges about revised NAAC accredited framework. The paper also comprehends the role of IQAC and the challenges and opportunities encountered by the same in the revised framework. The article would also impart suggestions to improve the IQAC functioning in the revised NAAC framework.
Keywords: Quality IQAC, NAAC, Assessment and Accreditation

Introduction
NAAC functions with main importance on Quality in higher education in India through acombination of internal and external quality evaluation. The significant features of the revised framework which became operational in July 2017 includes scalable, ICT enabled, robust, transparent and objective. The new framework comprises of System Generated Scores (SGS) with a precise combination of online quantitative evaluation of metrics (70%) and peer qualitative evaluation of metrics (30%).

At present institutions have started to focus more on improvement in the quality of both services and facilities on the basis of inputs obtained from various stakeholders (NAAC, industry, academicians, parents, students, management and government) and most importantly the self-assessment of the institution itself.

The Internal Quality Assurance Cell (IQAC) is established by institutions after the first cycle is an important step in achieving quality standards. IQAC is a major body responsible for quality concerns.
IQAC of an institution has, evolved as policy maker, think-tankand driving force in the overall quality enhancement of the institution. The analysis of the revised assessment and accreditation framework reveals,an enhanced role that IQAC must play in order to ensure quality improvement and maintenance. The main stakeholder of any institution of higher education is the students. Thus, any institution would primarily be analysed for its qualitybased on the satisfaction derived by its

students. IQAC of an institution must plan and implement its ideas, policies and practices to ensure satisfaction of the students. If students are satisfied because of quality education, it would lead to the providing competent individuals to the nation. And therefore, facilitating to National Development.
IQAC is responsible to initiate, plan, implement and monitor various activities that would enhance quality education in the institution.

NAAC assessment and accreditation (A & A) framework is considered to be one of the significant government recognised external assessment and accreditation body to evaluate the various quality attribute of an institution. Institutions has to focus more on internal improvement with regards to various quality parameters in order to enhance stakeholder's satisfaction. IQAC fosters institutional progress by generating ideas that would facilitate continuous improvement of the institution. The revised A & A framework has posed a significant challenge in the functioning of the IQAC in the institution. The present paper addresses the various challenges faced by the institution.

Objectives of the Study:
To understand the perceptions of select autonomous colleges about revised NAAC framework.
To understand the role of IQAC in the revised framework.
To understand the challenges, opportunities encountered by the IQAC in the institutions.
To provide suggestions to improve the IQAC functioning in the revised NAAC framework.

Research Methodology:
The present research falls under the purview of qualitative research where the select institutions opinion on IQAC role, opportunities and challenges post revised NAAC accreditation framework and the suggestions provided by the institutions are analysed. The data was collected using structured interview. The interview was conducted to the select four IQAC coordinators of select autonomous institutions. This finding might be an indication of the perception and attitude of autonomous colleges against revised accreditation provided by NAAC.

Data was collected from the institutes that either have submitted or in the process of submitting their Self-Study Report to NAAC in the revised framework.Face to face and Phone interviews were conducted in new framework.The data was collected from Secondary sources, including NAAC manual for autonomous institutions published in February 2018, concerned literature on the subject and World Wide Web.

Discussion:
IQAC coordinators of select autonomous institutions were interviewed and they were asked:
1. To provide their insights in the form of challenges, opportunities faced in NAAC revised accreditation.
2. They were asked to rate themselves in a 5-point scale (5 being highest and 1 being lowest) about their institutions performance based on the 7 criteria.

I Role of IQAC: Challenges, Opportunities and Suggestions:

A) After extended discussions with IQAC coordinators, the challenges faced by the IQAC in Autonomous colleges after the revised A & A include:

- Lot of IQAC coordinators emphasized that the autonomy should be given by the management to the IQAC to make policies.
- To bring about the clarifications amongst the members due to the revised A & A.
- Complete paradigm shift was observed in the revised framework.
- Ambiguity was found by IQAC in select Quantitative and Qualitative metrics.
- Lead time in planning, implementation and submission of Self Study Report is found to be very less.
- Huge volumes of documents to be uploaded in the format prescribed by the NAAC was found be tedious.
- Shift of the indicators from one criteria to other criteria when compared to the former framework. (Shift from Student Support Progression to Teaching, Learning and Evaluation). This has led to the confusion of the respective criteria in-charges.
- University, Autonomous and Affiliated institutes have different scoring system but the duration of their grant of autonomy or university status is not taken into consideration while providing scores.
- Funding for autonomous self-financed institutions is difficult to obtain. Hence Research and Infrastructure the procurement of funds from external agencies is difficult.
- Autonomous colleges who were young in the sense that they were granted autonomy couple of years

ago were functioning in both autonomous (last 2 years and non-autonomous (last 3 years).

- Element of ambiguity was observed in presentation of SSR.
- Majority of the institutions showed their grievance towards the pace with which they had to complete the preparation.
- Unclear about the scoring system and the weightage given.
- Ambiguity in Peer visit details.
- Human resource management and delivery of the result at a shorter time.
- Processes should be standardised and documentation should be systematic.
- No awareness of ICT based uploading of data.
- Frequent change in templates/formats are found to be difficult to cope with.

B) IQAC has wide number of opportunities in the revised framework to enhance the quality of the education.

- Focus oneffective Leadership functioning.
- Emphasis on participative culture and involvement of various stakeholders like students, teachers, parents, alumni and industry.
- Efficient Planning and implementation would let better results and outcomes.
- IQAC can standardize the processes and documentation.
- Better satisfaction for all the stakeholders due to their continuous involvement in the improvement of the quality education system.
- Prompting reflection on the institution as a whole.
- Element of judgement is reduced and hence may get a better rating.
- Generating and utilising huge volumes of data.
- Clarifying and focusing the institutions improvement efforts around specific, targeted, measurable objectives.
- Encouraging "ownership" of the resulting institutional improvement plans.
- Decentralisation and Participative Management.
- IQAC has an edge since the revised framework was an attempt to compare of NAAC indicators with international Quality Assurance Frameworks.
- IQAC is supported by ICT enabled revised framework which increased objectivity, transparency, scalability and robustness.
- IQAC has a better opportunity to facilitate the institution to get a better grade due to the introduction of system generated score which includes both online evaluation (about 70 %) and peer judgment, (about 30 %).
- NAAC introduction of the component of third party validation of data eliminated the element of human judgement and has facilitated IQAC towards achieving better grade to the institution.

C) Suggestions that can be incorporated by NAAC for a smooth transition to the revised framework

- Progressive change should be encouraged and not radical one.
- All the stakeholders should be involved in making the revised assessment and accreditation framework.
- NAAC should organize various seminars and workshops to create awareness amongst the institutions.
- Loopholes in the system needs to be looked into and addressed.
- Different weightages for different types of institutions based on the period of status acquired by them should be addressed.
- Considerable lead time should be given to prepare the SSR in the revised framework.
- Clarifying the stakeholders queries at a faster pace should be done.
- Pilot testing in different scenarios in different types of institutions should be incorporated.

D) IQAC role in the smooth transition to the revised framework

- Higher education institutions are characterised by academic programs, courses, value added courses, career-oriented programs, co-curricular and extra- curricular activities and student support activities.
- The continuous expansion in infrastructure and learning resources, innovation, research and student involvement are the key quality indicators.
- IQAC need to be punctual, alert and accurate in procuring data, arrangement and its recovery.
- The quantitative information can be obtained accurately and easily. Hence there is a need for ICT enabled data acquisition system.
- Innovative ideas, systematic planning, organizing required committees, timely execution, analysis of processes and activities and planning further necessary action must become the standard procedure of IQAC.
- For an institution to progress the mindset of the staff is important at present to so as to put up its plan effectively in practice.

- The IQAC has a great responsibility to ensure that the staff moulds themselves as desired by the institution.
- Every IQAC member should work in alignment with the IQAC Chairman and Coordinator.
- IQAC should concentrate on both short term and long-term planning.
- An effective execution of the plans needs a unified work culture.
- Innovations in student support services and activities should be focal point of any institution. Student support services can be systematically planned comprising of all the seven criteria.
- New program or course in the curriculum that addresses the requirement of students can enhance the capability of the student and making them industry ready.
- Teaching and learning methods should be student centric with ICT based methods and continuous evaluation can be highly effective.
- Co-curricular activities such as seminars, guest lectures, and competitions using ICT are among some quality enhancement drives.
- IQAC should concentrate on setting up of a career guidance and placement cell to address the student needs with regards to their progression to self-employment and employment, career counseling, campus placements etc.

The above were the challenges, opportunities and suggestions provided by IQAC Coordinators of select autonomous institutions in order to smoothly transit towards the revised framework.

II Self-Assessment

In the beginning stages of seeking accreditation, institutions conducted a self-assessment and ratedthemselves on a 5-point rated scale (5 being the highest and 1 being the lowest). The colleges rated themselves the highest on some criteria and lowest in other criteria.

Upon the process of accreditation, when these same institutions were asked in what criteria they experienced the most change as a result of the preparation of accreditation, the criteria in which the institutions originally rated themselves lowest were the criteria in which they reported having changed the most. Revised Assessment and Accreditation frameworkdirectedtheseinstitutions to identify the areas of growth, which resulted in improvement and plan of action to address these areas.

It may be understood that there is a probability that NAAC may rate these institutions better than the institutions rated themselves on particular criteria. TheRevised framework, in all cases, would be instrumental indeveloping specific, measurable, attainable, realistic and time bound improvement goals in the institutions.

Conclusion

IQAC of the institution hasto really need to gear up to achieve their targets. IQAC should really formulate a very effective plan along with defining short term and long-term goals and develop an organogram for effective execution of the plan. It is imperative to initiate and sustain ICT based processes to ensure translation of plan into action effectively. Benchmarking of all the activities would pave the way to quality improvement and stakeholder's satisfaction. In consideration with all the dynamic changes, IQAC have to work with a positive attitude and unified ambiance.

The NAAC revised framework directs the institutions to focus on both their strengthsand weaknesses, ensure the institution through IQAC to set, measurable and targeted improvement goals that become a continuous improvement process and not just the basis for maintaining accreditation.

References:

1. Key note address by Ganesh Hegde (01/09/2017), Deputy Advisor, NAAC, Bengaluru at National Seminar on Revised Assessment and Accreditation Framework at Shivaji Science College, Parbhani (M. S.).
2.Manual for autonomous colleges (July 2017) for institutional accreditation, NAAC, Bengaluru.
3. Menon and Rama (2006), **Quality Indicators for Teacher Education**NAAC and COL, 2006. eBook Collection Web. June. 2006
4. Mishra, 2006.***Quality Assurance in Higher Education: AnIntroduction*****,** NAAC and COL, NAAC, 2006. eBook Collection Web. June. 2006
5. Naik and Naik, Higher Education: Challenges and Visions, *University of Pune*, 1999.
6. Prasad and Prasad. *International Perspectives on Student Participation in Quality Enhancement*, NAAC, 2007. eBook Collection Web. August. 2007

❑❑❑

ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

6.

STUDENTS' PERSPECTIVE ON QUALITY ENHANCEMENT IN HIGHER EDUCATION – A SURVEY

Dr. Jyothi Nayar, V. SelvaKumar and P. Lavanya
Assistant Professor, Bhavan's Vivekananda College of Science, Humanities and Commerce, Sainikpuri, Secunderabad, Telangana- 500094, India.

Abstract

Quality enhancement of higher education is an important parameter in the assessment and accreditation of any institution. Students are significant stakeholders in higher education hence their perspective and participation is essential in quality assurance, enhancement and sustenance. Nurturing the students and moulding them into future human resources aids in generating an asset that helps in serving and bringing about social change at the national and global level.

In view of this, a survey was conducted from diverse group of undergraduate and post graduate students from autonomous colleges in the twin cities of Hyderabad and Secunderabad. The composition of the participants included those from different programs (Commerce, Humanities and Sciences) and from different boards at the intermediate and plus two levels (SSC, ISC, CBSC etc.). The data has been analyzed using statistical techniques like descriptive statistics, $\chi 2$ test and factor analysis using the Statistical Software SPSS and Mini tab.

The objective of the current study is to access and analyse the student feedback, in order to provide an academic environment that is conducive for the promotion of quality teaching-learning and research in higher education institutions.

Key words: Quality assurance, curriculum, teaching methodology, higher education, assessment

1. Introduction

Higher education in India is changing rapidly from the conventional teacher centric to student centric. In this scenario, the role of students in quality enhancement and sustenance of higher education is vital. The participation of students in the teaching-learning evaluation process is a prerequisite for maintaining quality education [1].

The definition of quality in terms of higher education varies from stakeholder to stakeholder [2]. Each of them choosing only those traits that contribute to their welfare rather than taking a holistic view. Evaluation, assessing and enhancing the teaching and learning process should be a significant agenda of the modern higher education system [3]. Without exception, all aspects of mentoring program in higher education have to be evaluated for quality [4].

Higher Education Institutions (HEI) normally cater to a heterogeneous group of students. Hence their choice of the HEIs is also diverse ranging from the quality of the institution, career oriented programs, ICT based teaching methodology, infrastructure, academic flexibility, location of the institution etc. In view of this, student feedback and evaluation provides an insight on the expectations of the students - the primary stakeholder, from HEIs.

Modern technology provides easy access to information hence the role of educators has changed to that of facilitators. Curriculum should be designed that is not only knowledge based but also skill based. It should broaden their horizon and develop their ability to reason, analyse and communicate.

For quality sustenance, it is imperative that the teachers/mentors also upgrade their knowledge in terms of recent advances in their relevant field and modern teaching methodology (ICT based).

The hallmark of an excellent HEI is the extent of student participation in the quality assessment. While many institutions have nominal representation of student participation that is mostly restricted to student activities, there are many institutions that involve the students to a larger extent. They have representations in the management and academic committees [5].

2. Methodology

Objective of the Study

1. To study the significant difference among the students with respect to Curriculum Aspects of the Autonomous Colleges.
2. To analyze any significant difference in the opinion of students regarding teaching methodology.

3. To study the students opinion on internal evaluation system on CBCS.
4. To analyze the important factors influencing students' perspective on Quality Enhancement in Higher Education.

3. Research design

A survey was conducted among undergraduate and post graduate students from the twin cities Hyderabad and Secunderabad. Simple Random Sampling technique was used as the sampling method to conduct survey. Questionnaire was distributed among 260 students. The questionnaire was divided into two sections. The first section consisted of questions pertaining to the demographic profile such as Gender, Age, Graduation, Courses and Intermediate Education. The second part of the questionnaire included the questions related to NAAC Criteria - Curricular Aspects, Teaching-Learning and Evaluation, Research, Infrastructure and Learning Resources. Also, influence factors were developed with a little modification to reflect influence factor scaling with 1= no influence and 5= very strong influence.

4. Analysis of the Data

The data was analyzed using descriptive statistics, Chi Square tests and Factor Analysis using SPSS 17.0 and Minitab17. The obtained data are presented in the tables and discussed.

4.1 Results and Discussion:

The collected data were analyzed and interpreted as follows.

Table 4.1.1: Statistical Analysis of Demographic Profile on Curriculum Aspects:

Variable	Description	p-value
Curricular Aspects	Gender Vs Curriculum designed to meet Industrial and Research requirements	0.576
	Gender Vs Curriculum incorporating recent advances in the relevant global demand	0.032*
	Gender Vs is Curriculum Student Centric	0.935
	Graduation Vs Curriculum designed to meet Industrial and Research requirements	0.011*
	Graduation Vs Curriculum incorporating recent advances in the relevant global demand	0.002*

*p < 0.05; significant

From Table 4.1.1, we observed that there is a significant difference between gender Vs Curriculum incorporating recent advances in the relevant global demand and graduation Vs Curriculum incorporating recent advances in the relevant global demand ($p < 0.05$). Also the findings reveal that 39.2% of the Gender and 41.5% of the Undergraduate and Postgraduate students are of the opinion that the curriculum does not incorporate the recent advances in the relevant global demand. Also, a statistical significant difference was found between graduate Vs curriculum designed to meet industrial and research requirement ($p < 0.05$). Based on the above observations it is may be said that quality enhancement requires the institute to take into consideration students' constructive suggestions on Curriculum and contents of the syllabus; modify and rearrange the course contents and incorporate recent advances in the relevant global demand.

Table 4.1.2: Statistical Analysis of Demographic Profile on Teaching and learning:

Variable	Description	p-value
Teaching Learning Methodology	Gender Vs Teaching Methodology using modern technology	0.698
	Gender Vs learning process involving project and internship	0.037*
	Courses Vs Teaching Methodology using modern technology	0.02*
	Courses Vs learning process involving project and internship	0.362
	Graduation Vs Teaching Methodology using modern technology	0.036*
	Graduation Vs learning process involving project and internship	0.002*

*p < 0.05; significant

From Table 4.1.2, based on Teaching and learning methodology which includes ICT modern technology like LCD, Video Conference, other resources and media, we observed that there is a significant difference between Course group and graduation Vs ICT enabled technology ($p < 0.05$). Also the findings reveal that 18.1% of the male and 30.8% of the female students were of the opinion that the institution was implementing ICT enabled tools in the best possible way.

Table 4.1.3: Statistical Analysis of Demographic Profile on Internal Assessment:

Variable	Description	p-value
Internal Evaluation System	Gender Vs Opinion on Internal evaluation System in their institution	0.3
	Gender Vs Evaluation of the Internal assessment	0.82
	Graduation Vs Opinion on Internal evaluation System in their institution	0.42
	Graduation Vs Evaluation of the Internal assessment	0.28

*p < 0.05; significant

From Table 4.1.3, we observed that there is no significant association between Gender and graduation Vs Internal Evaluation Assessment (p >0.05). Based on the students' response, 63.5% of the Undergraduate students and 61.5% of the Postgraduate students expressed that the internal evaluation system of their Institution needed radical changes. 33.3% of the male and 32.9% of the female students felt that if no weightage was given to internal assessment, their grades would have been better.

Table 4.1.4: Statistical Analysis of Demographic Profile on Infrastructure facilities:

Variable	Description	p-value
Infrastructure	Course Group Vs Classrooms/labs/Canteen/other facilities well equipped and properly maintained	0.258
	Course Group Vs Library well equipped up to date facilities (books/ journals/ e-access)	0.03*
	Course Group Vs Sports facilities in the institution	0.192

*p < 0.05; significant

From Table 4.1.4, we observed that there is significant difference in opinion among Students of different courses Vs library facilities. 60.1% of the students said that the library was partially equipped (books, journals and e-access) and maintained.

4.2 Factor Analysis

The collected data was analyzed through factor analysis by using SPSS. Factor analysis is an important measure to identify common dimension factors. It is a data reduction technique that can help to determine a smaller number of underlying dimensions of a large set of inter-correlated variables.

Table 4.2.1 lists ranking of the 12 factors influencing students' perspective on Quality Enhancement in Higher Education.

Table 4.2.1: Descriptive Statistics

	Mean	Std. Deviation	Analysis N
Curriculum Student centric	2.02	.700	260
Curriculum Practical Oriented	2.19	.866	260
Designed to meet Research and Industrial needs	2.33	.921	260
Syllabus Incorporate Recent Advances	2.37	.863	260
Teaching Methodology using Modern technology	2.18	.772	260
Teaching Methodology is interactive (seminar/Quiz)	1.73	.717	260
Opinion about Internal Evaluation	1.77	.677	260
Evaluation of the internal Assessment	1.64	.681	260
Classroom/lab/canteen facilities	1.79	.809	260
library facilities	1.77	.645	260
Sports facilities	1.96	.807	260
Student-Teacher Relationship	1.90	.714	260

The Kaiser-Meyer-Olkin (KMO) criterion and Bartlett's tests were used to test whether factor analysis is appropriate for these data. KMO measures sampling adequacy and Bartlett's test measure tests the null hypothesis that the original correlation matrix is an identity matrix.

Table 4.2.2 illustrates that, for the given data the KMO score is 0.796. This KMO value shows that the sample was adequate and therefore acceptable, and the distribution of value is adequate for conducting factor analysis. The Bartlett's Test of Sphericity value was highly significant (Chi square = 476.583, p < 0.001), and therefore factor analysis is appropriate.

Table 4.2.2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.796
Bartlett's Test of Sphericity	Approx. Chi-Square	476.583
	df	66
	Sig.	.000

Table 4.2.3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.197	26.638	26.638	3.197	26.638	26.638	2.419	20.155	20.155
2	1.455	12.127	38.765	1.455	12.127	38.765	1.696	14.133	34.288
3	1.059	8.828	47.593	1.059	8.828	47.593	1.597	13.305	47.593
4	.933	7.773	55.366						
5	.902	7.516	62.882						
6	.823	6.857	69.739						
7	.733	6.111	75.850						
8	.691	5.755	81.605						
9	.680	5.670	87.275						
10	.558	4.646	91.921						
11	.516	4.300	96.221						
12	.453	3.779	100.000						

Table 4.2.3 explains the Eigen values associated with each linear component (factor) before extraction, after extraction & after rotation. Before extraction it has identified 12 linear components. The Eigen values associated with each factor represent the variance explained by that particular linear component. It also displays the Eigen values in terms of percentage of variance. We have to consider all factors with Eigen values greater than 1. The first factor component in the table 4.2.3 explains 20.155% of the variance. Similarly, the second and third factor components explain 14.133% and 13.305% of the total variance. Through factor analysis, three major components were extracted from the 12 variables.

Table 4.2.4 shows the rotated component matrix using the extraction method of Principal Component Analysis. Each of the factors having multiple values is grouped under the iteration where it has the highest value

Table 4.2.4: Rotated Component Matrixa

	Component		
	1	2	3
Curriculum Student centric	.477		
Curriculum Practical Oriented	.696		
Designed to meet Research and Industrial needs	.745		
Syllabus Incorporate Recent Advances	.510		
Teaching Methodology using Modern technology	.614		
Teaching Methodology is interactive (seminar/Quiz)	.626		
Opinion about Internal Evaluation			.694
Evaluation of the internal Assessment			.721
Facilities classroom/lab/canteen		.593	
library facilities		.439	
Sports facilities		.739	
Student-Teacher Relationship			.539

Table 4.2.4 above presents the three factor components as derived from the varimax rotation method of factor analysis, each given an 'interpretative' name. The first factor has been named "Curriculum and teaching learning methodology". There are six variables in this factor component namely, Curriculum - Designed to meet Research and Industrial needs, Practical Oriented Curriculum, Teaching Methodology using Modern technology, interactive Teaching methodology, Syllabus Incorporating Recent Advances and Student centric Curriculum together, they account for 20.155% of the variance. The second factor has been named "Infrastructure" to reflect variables such as library, classroom, laboratory and sports facilities. The second factor group explains 14.133% of the total variance. The third group, which represents 13.305% of the variance, is named "Internal Evaluation system" as it contains variables such as evaluation of the internal Assessment, Opinion about Internal Evaluation and student teacher relationship [6].

5. Discussion on Findings & Conclusion

5.1 Major Findings

The study revealed that based on the gender and graduation, 39.2% of the Gender and 41.5% of the Undergraduate and Postgraduate students are of the opinion that curriculum does not incorporate recent advances in the relevant global demand. We conclude that there is a significant difference between gender and graduation Vs Curriculum incorporating recent advances in the relevant global demand. Also the findings reveal that 18.1% of the male and 30.8% of the female students responded that the institution was implementing ICT enabled tools in the best possible way but there is a significant difference between Course group and graduation Vs ICT enabled technology.

Based on the survey, 60.1% of the students said that the library was partially equipped (books, journals and e-access) and maintained. In addition, 63.5% of the Undergraduate students and 61.5% of the Postgraduate students expressed that the internal evaluation system of their Institution needed radical changes and 33.1% of the students felt that if no weightage was given to internal assessment, their grades would have been better.

Among the 260 students who participated in the survey, 24.2% of them expressed that CBCS and semester based curriculum is excellent, 51.2% felt it good,16.2% of the students gave their opinion as satisfactory and 8.5% felt that non CBCS is better.

Three factors, explaining 47.593% of the total variance was identified. These factors were named "Curriculum and teaching learning methodology", "Infrastructure", "Evaluation System". A ranking of means revealed that Curriculum- incorporating recent advances in the relevant global demand and designed to meet Research and Industrial needs plays a great role of importance among all the 12 factors.

Conclusion:

Higher education in India is the third largest in the world, next only to the United States and China. The main governing body at the tertiary level is the University Grants Commission, which enforces its standards, advises the government, and helps to coordinate between the centre and the state. The rapid increase in the higher education system today is the result of a greater awareness, need for career oriented programs and globalization of higher education [7].

The findings of this survey provide scope for HEIs to ensure quality assessment by involving the student community in the teaching-learning process and curriculum designing. Student participation would not only benefit the institution but also make

the students more mature, sharpen their skills in analyzing and planning, confident in facing interviews, prepare them for further research and industrial requirements. Quality education should lay emphasis not only on academics but also on the overall personality development of the students.

References:

1. MOOL CHAND SHARMA, (Special Address), 2006. Proceedings of International Conference on Student Participation in Quality Enhancement (SPQE) held on 16 -17 September 2006 at Bangalore, India with support of Asia-Pacific Quality Network. NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL ASIA-PACIFIC QUALITY NETWORK ISBN: - 81 - 89842 - 05 – 6, pp. XI – XII.
2. HARVEY, L. & NEWTON, J., 2004, 'Transforming quality evaluation', Quality in Higher Education, 10(2), pp. 149-65.
3. NEWTON, J., 2002, 'Views from below: academic coping with quality', Quality in Higher Education, 8(1), pp. 39-61.
4. MILLER, A., 2002, Mentoring students and young people. A handbook for effective practice (London, Kogan Page).
5. ANTONY STELLA, 2006. Student Participation In Quality Assurance. Proceedings of International Conference on Student Participation in Quality Enhancement (SPQE) held on 16 -17 September 2006 at Bangalore, India with support of Asia-Pacific Quality Network. NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL ASIA-PACIFIC QUALITY NETWORK ISBN: - 81 - 89842 - 05 – 6, pp. 4-18.
6. SELVAKUMAR V, A Study on factors Influencing students to join a particular college among the students in Twin cities Hyderabad and Secunderabad held on January 2014, International Conference on Recent Developments on Statistical Theory and Practice-Pondicherry University, ISBN 978-93-83459-13-1 2014 Bonfring.
7. www.wikipedia.org/wiki/Higher_education_in_India.

❑❑❑

7.

USE OF THEMATIC INSPECTIONS & AUDITS FOR SELF-ASSESSMENT AND ACCREDITATION

Dr. Vinita Sharma
Assoc. Prof., Dept. of Business Management,
PG Centre, AV College of Arts, Science & Commerce, Hyd.
E –Mail: vinitasharma.avcollege@gmail.com, Mob: 9848396024

Abstract

The purpose of accreditation is to evaluate the performance of an educational institution using standardized criteria and to give suggestions for further improvement. Academic and administrative audits are an integral part of the assessment that leads to accreditation of higher education institutions (HEI). In view of the critical role higher education plays in the development of a nation, this task is often entrusted to autonomous government bodies. In India at the national level we have National Assessment and Accreditation Council (NAAC) set up by University Grants Commission (UGC) and National Board of Accreditation (NBA) set up by All India Council for Technical Education (AICTE) for accrediting HEIs.

It is felt that the approach to assessment taken by these accrediting bodies works well for big and strong educational institutions with adequate resources. But for smaller institutions having resource constraints the process can be very tedious and time-consuming and does not provide much value addition to the Institute. In this paper the use of thematic inspections and audits has been proposed in areas that show potential for further development or are deficient as an additional assessment tool for assessments..

1. Introduction

Accreditation is a process of quality assurance, in which Institutions are critically appraised at intervals to verify if the Institution or the Programme is meeting the norms and standards prescribed by the regulatory body. The extent to which the Indian accrediting agencies have been able to fulfil their objectives and the needs of HEI is debatable. Also an accreditation by itself does not create quality learning experiences, it is the unique combination of factors individual to an institution that make it rise above the others. A look at the criteria of assessment reveals that due weightage has been given to every aspect of education, but the implementation focus at present, especially for smaller affiliated institutions is more on the 'input side'. The emphasis is on requiring that institutions comply with the minimum infrastructural and other requirements necessary to sustain the teaching learning process. This can be attributed largely to the rapid expansion in the higher education scenario in the last decade. Today India's higher education system is actually the largest in the world comprising of 36,000 HEI's and over 70 million student.

This makes it a Herculean task for accrediting bodies given the resource constraint in any developing economy. It is against this back-drop that use of theme based inspections and audits are proposed as a measure to supplement the efforts of the accreditation and to overcome some of these limitations. Normative

2. Objectives

The objectives of this study are -

- To review the existing HEI Accreditation system along with the approach, procedure and criteria used by NAAC.
- To study the features and utility of theme based Inspections /audits.
- To study the feasibility of using theme based inspections and audits.

3. Methodology

The present study is descriptive cum exploratory. It is primarily based on secondary data collected from various sources like journals, news-paper and magazine articles, websites of accrediting bodies and other organizations. Here first a review of the existing Accreditation system in India was undertaken. This was followed by the descriptive review of different criteria used by the accrediting body NAAC. And then a study of the features and utility of theme based inspections was done before exploring the feasibility of using theme based inspection in HEI.

4. HEI Accreditation system in India and NAAC

At present two nationally acclaimed autonomous bodies have the requisite

infrastructure, competence and mandate to carry out the process of accreditation of HEIs - i)National Assessment & Accreditation Council (NAAC) and ii)National Board of Accreditation (NBA). NAAC was established by University Grants Commission (UGC) in 1994, it is responsible for recognizing, evaluating and accrediting institutions and academic departments of HEIs. NBA was set up by All India Council for Technical Education (AICTE) to accredit programmes in professional and technical disciplines, i.e., Engineering and Technology, Management, Architecture, Pharmacy and Hospitality etc. on the basis of guidelines, norms and standards specified by it. The procedure and criteria used by NAAC is listed in Table:1.

Table 1: Procedure and criteria used for accreditation by NAAC

Accrediting body for	recognizing, evaluating and accrediting institutions and academic departments of HEIs
Procedure	combination of self-evaluation and peer review based on predetermined criteria for assessment
Criteria used for Affiliated Institutions along with weightage assigned	1. Curricular Aspects (100), 2. Teaching, Learning and Evaluation (350), 3. Research, Consultancy and Extension (150), 4. Infrastructure and Learning Resources (100) 5. Student Support and Progression (100), 6. Governance, Leadership and Mgmt (100) 7. Innovations and Best Practices (100) **Grand Total – 1000 marks**

5. Features and utility of theme based Inspections /Audits

Thematic or topic focused inspections/audits examine a single key issue and concentrate solely on assessing performance in relation to that key issue. Thematic inspections can prove to be very helpful in spotting and exploring the issue allowing us to concentrate on critical issues and sticking points. They not only give us the flexibility to decide on the key issue but also on the scope of inspection or audit for the chosen issue. At the same time they do not make the assessor feel everything is being assessed or criticized. Ability to customize the theme, scope, time-period are other advantage with these inspections. These inspections allow us not only to examine an issue in an organization but can also be used to explore an issue across many organizations. This can prove very helpful to the regulators in getting a macro picture of issues.

Thematic inspections have been used in schools in Europe especially, but usually to examine the impact of teaching a specific subject or of an issue on the educational system. In this paper it has been proposed that thematic inspections be used as a component method of self-assessments and accreditations.

6. Feasibility Study: use of theme based inspections as a component tool for self-assessment and accreditation.

The criterion- Teaching and Learning, enjoys the maximum weightage amongst NAAC's seven assessment criteria, NAAC has assigned it 350 points out of 1000 points. A look at the seven sub-criteria or as NAAC refers to them as Key Aspects (Table:2) used to assess this dimension of an HEI reveals that they do capture almost the entire gamut of activities involved. Yet at the same time they are not exhaustive. NAAC too states these are not a set of standards or measurement tools and do not cover everything which happens in every HEI, but are levers for transformational change. Just like every individual is unique with his/her strengths and weaknesses so is every HEI. What works for one HEI might not work for another. This is where thematic inspections and audits can help customize the audits and inspections to get better results. For instance let us take the sub-criterion 'teaching-learning process' we find eleven sub-sub criterion under it. (Table:2).

Table 2: Weights assigned to Criterion II and its sub-criteria

Main Criteria	Sub – Criteria/ Key Aspects and weights assigned	No. of sub-sub criteria
Criterion II. Teaching Learning and Evaluation	2.1 Student Enrolment and Profile (30)	6
	2.2 Catering to Student (50)	6
	2.3 Teaching-Learning Process (100)	11
	2.4 Teacher Quality (80)	6
	2.5 Evaluation Process and Reforms (50)	7
	2.6 Student Performance & Learning (40) Outcomes	7
	Total 350	**43**

Now let us assume that an institution wants to strengthen this sub-criteria or is found wanting in this sub-criterion. Its scope is quite vast and it would be difficult to work on, in its totality, especially for an affiliated institution, as they are always coping with resource constraints. Here a theme based inspection can prove be very useful and cost-effective. The institution need not worry about all the eleven sub-criteria (Table: 3) at this juncture, it can take a phased approach to working on it.

Table:3 Sub-criterion - teaching and learning process and its sub sub-criteria

Criterion 2	**Sub-Criterion**
Teaching-Learning Process	1. Teaching, learning and evaluation schedules? 2. IQAC's contribution to improve the teaching –learning process 3. How is learning made more student-centric? 4. How institution transforms them into life-long learners and innovators? 5. Technologies and facilities available/used for effective teaching? 6. How students and faculty are exposed to advanced knowledge and skills? 7. Academic, personal and psycho-social support provided to students? 8. Innovative teaching approaches/methods adopted by the faculty & institution's help to faculty for it & its impact. 9. How library resources augment the teaching- learning process? 10. Does the institution face challenges in completing the curriculum? If 'yes', the challenges & institutions approach to overcome them. 11. How does the institute monitor and evaluate the quality of teaching learning?

It can zero in on one or two sub-sub criteria that are more suitable for its student demography and overall strategy. Let us say the institution has recently invested in technological infrastructure so it decides to work on the sub-sub criterion-'Innovative teaching approaches/methods adopted by the faculty & institution's help to faculty for it & its impact'. This would be the first step – deciding on a theme for the theme based inspection. The next step would be to decide on the scope of the inspection. Here again the institution can use its discretion to decide if it wants to include all the programs or start with some select ones. The decision making process can also be participative and collaborative. The third step is for the assessor and assesses to mutually decide on the parameters for assessment; attainable targets and the time frame to achieve it. This is followed by the theme based inspection. After this the results of the inspection need to be incorporated into a report and circulated among all involved for comments and further action. Once the report has been agreed upon with the inspected entity, all involved are invited to compile an action plan in response to the report recommendations. Here once again based on the feed-back changes can be incorporated. These inspections can be repeatedly scheduled subject to the institution achieving a target. These can be used as part of an institution's overall

strategy to achieve its organizational objectives and goals.

These can be of great use to accrediting bodies also; especially for institutions securing provisional accreditation. They can also be used across institutions to study the impact of certain policies implemented or regulatory initiatives taken. Small un-accredited institutions aspiring to achieve full fledged accreditations can also use them for self-assessment. Thus we can see that the potential of theme inspections is indeed immense, if used properly.

7. Conclusion and suggestions

Accreditation assessments identify the strengths and weaknesses. Thematic inspections can be used as a means of building on these identified strengths or in addressing the weaknesses identified in specific areas for development. They can be used by institutions to put in place a customized self-assessment process that works for it, that helps it grow. The simplicity and flexibility thematic inspection offer, make it a very powerful tool. The use of exploratory meetings, inclusive, consultative processes helps bring all involved on the same page. The framework so developed can be used by the accrediting bodies too, and expert suggestions and inputs given by them on these would be more beneficial to the institution.

From an institutions perspective the accreditation exercise is regarded as a tedious, time-consuming and highly repetitive exercise which does not provide much value addition. Use of thematic inspection can change this. It would encourage organization's to carry out to initiate self-assessment in appropriate areas that would benefit from improvement, taking one step at a time. Accreditation assessments could use them to take into consideration the effectiveness of the internal quality assurance processes.

Quality sustenance whatever be the tool or method takes time, resources and above all a commitment from relevant authorities. It is very important that the college and concerned departments are headed by people who are genuinely interested in the development of the institution for it to deliver results. Thematic inspections can help conserve on much needed time and resources, which can be used more beneficially. Another advantage is that they allow us to take a deductive approach in handling the issues.

Accrediting bodies too can use thematic inspections to cover more than one colleges and in this way not only see how a single college is working on the chosen theme but also see the over-all macro picture.

References

1. Roger Standaert, Inspectorates of Education in Europe – A critical analysis, 2001, Published by Uitgevery Acco, Brusselsestraat, 153,3000 Leuven (Belgium) available at https://books.google.co.in/books?id=gZ53QRy_AnEC&pg=PA78&lpg=PA78&dq=what+are+thematic+inspections&source=bl&ots=a6tfgtrTH5&sig=cX1Q-uDoWQtpNvRdLSOZijRa7so&hl=en&sa=X&ved=0ahUKEwin6NrR67fRAhVCPo8KHbYDDWQ4HhDoAQgYMAA#v=onepage&q=what%20are%20thematic%20inspections&f=false
2. Aspects of Quality- https://english.onderwijsinspectie.nl/inspection/inspection-of-schools-by-the-dutch-inspectorate-of-education/aspects-of-quality
3. Thematic Inspections -The Department of Education and Skills of Irish Government available at http://www.education.ie/en/Publications/Inspection-Reports-Publications/Thematic-Inspections/.
4. Guidelines of self-assessment of Academic Audit –Tertiary Education Commission, Mauritius available at http://tec.intnet.mu/pdf_downloads/reg&guid/Guidelines%20for%20Self-Assessment%20of%20Academic%20Audit.pdf
5. Standards and Guidelines for Quality Assurance in the European Higher Education Area available at http://www.enqa.eu/wp-content/uploads/2013/06/ESG_3edition-2.pdf
6. http://aarf.asia/call_for_paper.php

❑❑❑

8.

INTELLECTUAL INTELLIGENCE INDUCED EXCELLENCE IN EDUCATION -- THE ROAD AHEAD FOR EXCELLENCE IN EDUCATION

Ms.KVB SARASWATHI DEVI,
ASSISTANT PROFESSOR & HEAD
DEPT OF COMP.SCIENCE
Bhavan's Vivekananda college
Email: saraswathi.hod.cs@bhavansvc.org
Phone:9441120468

Ms.B DIVYA REKHA LECTURER
DEPT OF COMP.SCIENCE
Bhavan's Vivekananda college
Email:b.d.rekha@gmail.com
Phone:9985148138

Ms.S JAYA LAXMI, LECTURER
DEPT OF COMP.SCIENCE
Bhavan's Vivekananda college
Email:cnujaisid@gmail.com
phone:9989440261

Abstract
Intellectual intelligence (II) can be inferred as understanding the facts, the concepts behind the facts and the path to be followed to get those facts.

Educational Institutions quest for excellence often results in all participants and stakeholders focused on quality, owing to **COMPETITION, CUSTOMER SATISFACTION, MAINTAINING STANDARDS, ACCOUNTABILITY, IMPROVE MORALE AND MOTIVATION, CREDIBILITY, PRESTIGE, STATUS, IMAGE AND VISIBILITY.** Quality in institutions leads to excellence and ability to attract better stakeholder support. This also result in getting merited students from far and near, increased donations/ grants from philanthropists/ funding agencies and higher employer interest for easy placement of graduates.

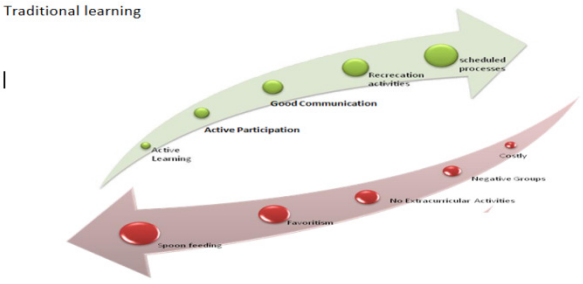
The intention of this research paper is to throw light on the impact of NAAC on the quality in Higher Education. Higher education is changing; many organizations or universities are forced to be in a state of evolution & revolution.

New educational models and means of delivering educational programs/ services are fast evolving. Updating & being aware of changing environments is an important trait for the present. A small delay in updation or lack of updation leaves the people/organization far behind in the fast evolving competitive scenario.

The need is to examine all aspects of how to practically implement excellence in education with the aim of reorganizing decision making and infusing the reorganized decisions in educational institutes with a service orientation

Our study focuses on effective solutions to address the challenges faced in dispensing higher Education and ensure the Ethos of excellence (that marks teaching and research) permeates to every aspect of the organization.

key word: quality of education, higher education, organization, Exhilarating, revolution, goal, excellence.



I. INTRODUCTION

Quality is Defined by The British Standard Institution as "the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs" (BSI, 1991).

What is excellence?

Excellence is a goal which can be achieved with quality. Excellence is visible at all levels of organization. [Pramod Ambadasrao Pawar, pageNo:3,4] It can be gauged in every process of an organization. Quality when applied to every organizational process often results in Excellence. It focuses on elements essential to establish and sustain a successful institution or program. It is a framework built around Quality in integration of approaches to assessment, planning and improvements. Management audits, disciplinary reviews and strategic planning often provide relevant data to provide guidance for a generic model broadly applicable across all functions and levels of an institution. Evaluation areas are used to define excellence in higher education:

1. Leadership
2. Purpose and plan
3. Beneficiary and constituents
4. Program and service
5. Personnel and workplace
6. Assessment and information uses.
7. Outcomes and achievements

An efficient organization depends on evaluation areas 1–5 that are fundamental building blocks. Evaluation area 6 focuses on methods and procedures in place to assess quality and effectiveness of the above. Outcomes and achievements results of efficient implementation of Areas 1 to 6 that are documented through the assessment process. This model can be applied across a varied purposes and organizations / individuals.

Education is a basic need for human development and Poverty Alleviation. World over generally, Dispensation of Education is deemed the responsibility of the government and is managed through national resources. Higher education is important for social and economic development of society, wherein Governments and society have a vested interest to ensure continuous growth in higher education.

Excellence in Higher education dispensation and Infrastructure in Developed Countries often attract large number of students from world over. This results in significant movement of resources. It is an economic resource drain and often results in brain drain as well.

An excellent quality higher education dispensation infrastructure often results in Retention in local students and attracts foreign students.

'Quality' higher education in local universities results in increased economic activity in this sector. However, the higher education institutions and concerned authorities need to understand the importance of creating an attractive image of quality education. Loyalty of customers and good marketing strategies are akin for success apart from EXCELLENCE. Periodic feedback of all stake holders and continuous in process corrections should form an essential component of education quality management system.

- To what extent do demographic characteristics of students influence perceptions of higher education quality?
- To what extent do current and background status of students influence perceptions of higher education quality?

Quality assurance is defined as 'those systems, procedures, processes and actions intended to lead to the achievement, maintenance, monitoring and enhancement of quality.

It has become Word wide importance to assurance Quality for higher education. Organizations have teamed up among quality assurance agencies at international and regional levels. ASEAN countries have teamed up to assure quality of higher education within the region and resulted as ASEAN University Network (AUN) .

Regional quality assurance activity in higher education in Southeast Asia: Its characteristics and driving forces.

The four basic areas of AUN's activities are: exchanging academic staff and students, doing collaborative research activities, sharing information, and promoting ASEAN studies. According to this study, the driving forces of AUN quality assurance activities are

(1) Taking policies to reduce economic gap within the region;

(2) Making policies of the more developed countries to internationalize higher education institutions;

(3) Exchanging staff and transferring credits, and

(4) Making policies to create a single market.

These activities are designed not only to increase collaboration among universities, but also to establish regional economy and improve the productivity and efficiency.

To sustain in the market the educational institution operate in, there is a need to assure a standard quality of service. Quality Educational Institutions are in present times are akin to traits of profitable and non-profitable organizations. These institutions often target market segments based on higher education quality. Recent studies identified quality of students, faculty credentials, academic features, and administrative support's Perception of education quality as leading parameters for Quality.

Higher education in Modern times is a Buyer's Market. Students attach great importance to curriculum, faculties, library, resources offered, Infrastructure etc. The authors explore the value propositions for each segment stated herein. Selecting the appropriate segment is critical for the organization as a target market.

Studies conducted till now have not been able to explore the factors that influence Student's perception about the quality of each area (curriculum, library, resources offered, infrastructure). Although previous studies agree that education quality can be determined by multiple dimensions that help the higher education institutions to design appropriate value propositions. Some studies have focused on students' evaluation of individual classes or the evaluations of individual teachers by students to measure the quality of education.

Therefore, this research will identify and measure the extent to which students' characteristics influence the perceptions of higher education quality. As it is difficult to change the existing value propositions to satisfy a diverse group of students, it is easier and more effective for universities to select the specific market segment(s) that can be satisfied with the current strength of universities. Thus, these findings will help university authorities and policy-makers to segment the student groups based on their characteristics and target the right group of students for different institutions.

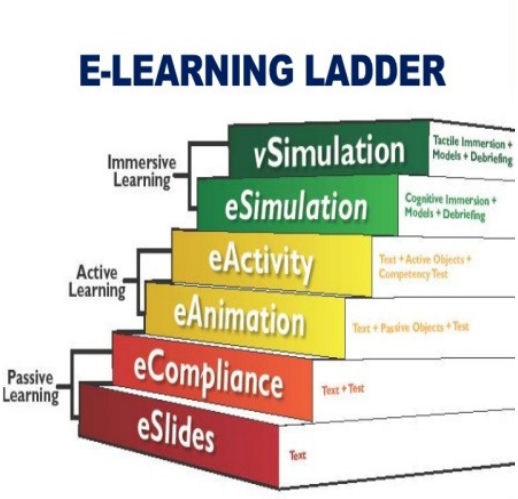
II. OBJECTIVES:

1. Methodical shift from class room teaching to virtual teaching.
2. Analysis of models.
3. Suggestions by the authors.
4. Author's opinion and Conclusion

III. ANALYSIS AND STUDY

Objective 1: Methodical Shift from class room to virtual teaching:

E-learning Ladder:



The integration of e-learning into higher education pedagogy has occurred against a backdrop that includes the development of a integrated e-learning strategy and an increased focus on setting priorities for e-learning research.

This includes an e-learning and pedagogy strand with a focus on both designing for and understanding learning, including consideration of learner participation in, and experience of, e-learning.

Advantages of E-learning in education, obtained from review of literature includes (secondary data)

1. Flexibility of time and place .Student has the flexibility of choosing the place and time that suits them.
2. E-learning improves the efficiency of knowledge and qualifications via ease of access to a large amount of Data.
3. It provides opportunities for learners by the use of discussion forums. E-learning eliminates barriers. E-learning provides better communication and also improves the relationships that sustain learning.
4. E-learning is cost effective in the sense that there is no need for the students or learners to travel. It is also cost effective as it offers opportunities for learning for maximum number of learners with no need for many buildings.
5. E-learning takes into consideration the learners differences. Some learners prefer to concentrate on certain parts of the course, while others are prepared to review the entire course.
6. E-learning helps to compensate academic staff, as well as facilitators, lab technicians etc.
7. The use of e-Learning allows self-pacing. For instance the asynchronous way permits each student to study at his or her own pace and speed whether slow or quick. It therefore increases satisfaction and decreases stress.

These seven advantages of e-learning has been summed as the ability to assess the students or learners as they learn, and at the same time increasing their experiences in education.

Universities providing online certificate programs:

Here are 10 certificate programs offered at Ivy League schools and universities/online certificate programs

- Cornell University. ... -
- Yale University. ...
- Columbia University. ...
- Princeton University. ...
- University of Pennsylvania. ...
- Harvard University. ...
- Stanford University. ...
- Duke University.

Cornell University

This University provides a course of study in hospitality management, at the Cornell Hotel School. It also offers online certificate programs in hospitality and food service management (hotel revenue management certificate) .

Yale University

This University does not provide many online programs, but it has few certificate programs for undergraduate degree--like acting certificate.

Columbia University

This University offers 10 renowned certificate programs for college graduates and professionals looking to advance their education. This university is one of the highest ranked colleges, making their business certificate program a huge success.

Princeton University

One outstanding certificate programs is a teacher preparation certificate.

University of Pennsylvania

This University provides a general and vague continuing education certificate programs, like Penn Nursing Science's sleep certificate program.

Harvard University

This university offers traditional or distance education, such as international management, negotiations management, sustainable development, ecological management etc.

Stanford University

This University offers distance education courses and certificates, like online bioinformatics certificate.

Duke University

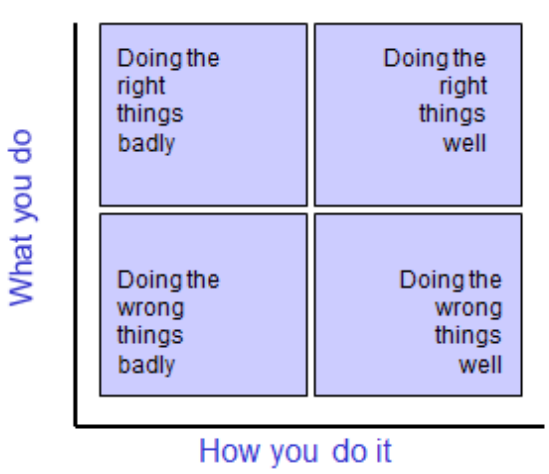
This University provides 35 certificate programs, designed to enhance graduate-level study with advanced training and in-depth research. One program which is very popular is the health policy certificate program.

University of Notre Dame

This University provides many online programs which are business-related, such as the featured executive certificate in leadership and management program.

New York University

This University provides excellent online professional certificates for students and working professionals, on a specific area with flexible timing. The popular choice among students is the certificate in screenwriting.



Objective 2: Analysis of models:

Model:1

1. The European Foundation for Quality Management (EFQM) model:

The European Foundation for Quality Management (EFQM) 'Excellence Model' is a self-assessment structure for

determining the strengths and areas for improvement of an institution through its activities. This Model focuses on what an organization does, or could do, to provide an excellent service to its students, customers, service, users or stakeholders. It provides a broad and articulate set of assumptions about the requirements for a good organization and its management.

The EFQM Excellence Model establishes broad criteria, which any organization can use to assess the progress towards excellence.

These are few criteria which are divided between enablers and results:

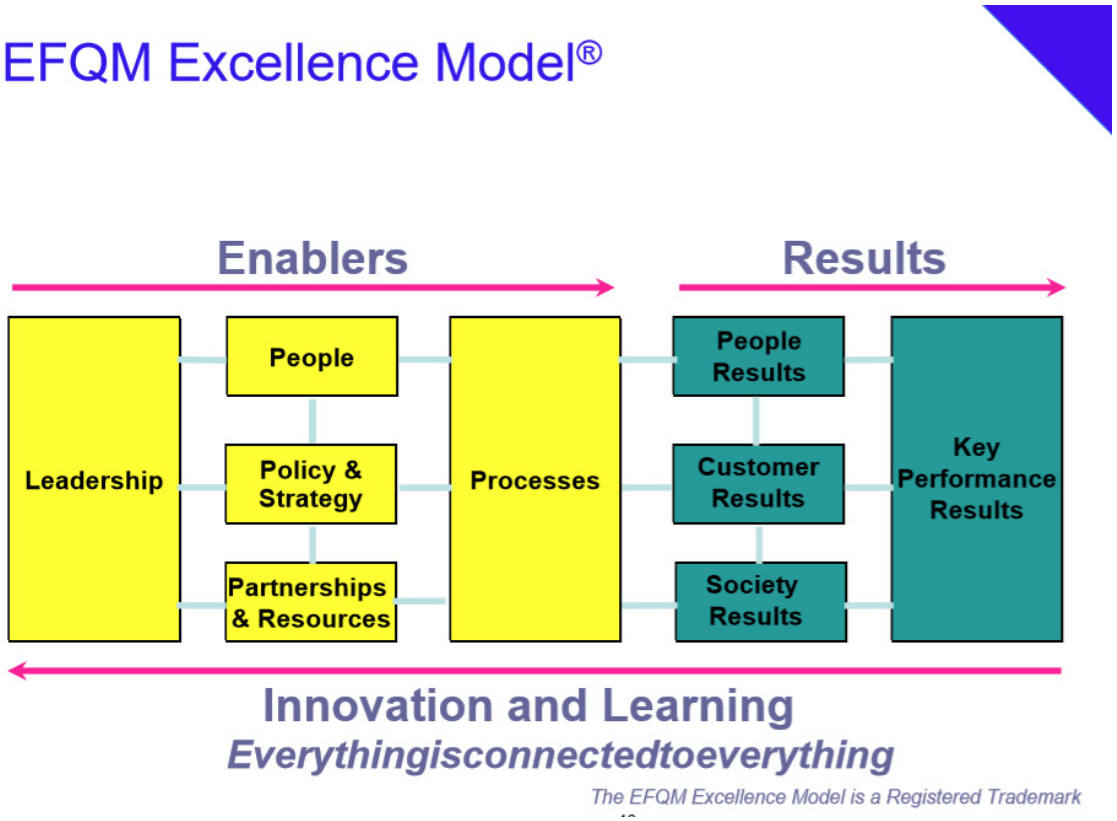
Leadership: Excellent leaders develop and facilitate the achievement of the Organization Goal. They develop organizational values and systems required for continuous success and implement through their measures and behaviors.

Policy and strategy: Excellent organizations implement their operation and by developing a stakeholder-focused strategy that takes account of the Organization in which it operates. Few Policies, plans, objectives and processes are urbanized and being implemented to deliver the strategy.

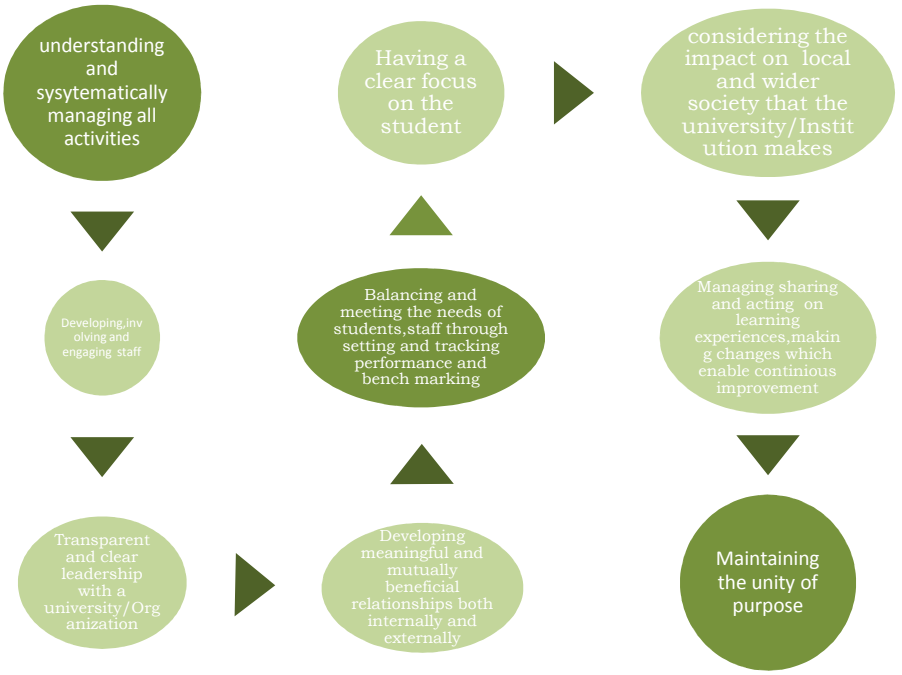
People management: Recognizing potential of their people at an individual, team-based and organizational level.

Partnerships and resources: Organizations plan strategies like external partnerships, suppliers and internal resources for effective operations.

Process management: Designing excellent processes for the improvement of students and other stakeholders.



Fundamental Concepts of Excellence



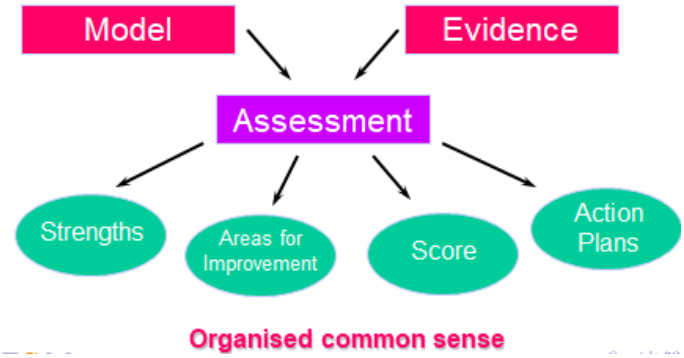
EFQM EXCELLENCE MODEL SYSTEM

EFQM Excellence Model System Outcomes:

- Self-evaluation
- Strengths
- Areas for improvement
- Potential actions
- Prioritised actions
- Benchmark score

Key Lessons being learnt from applying the EFQM Excellence Model in Education:

What is self-assessment?



- VC and senior management leadership commitment drive and ownership is essential.
- Communication (internal) is a decisive process.
- The complexity of our institutions is huge, but the potential impact of change is greater.
- Providing a common language and shared learning that has not necessarily existed before.
- Staff desire to improve what they are doing - real willingness to embrace excellence.
- Much comprehension/information exists - just needs to be captured, enhanced and synchronized.
- The development of the organization within this structured framework is possible by taking models of management, tools and techniques as approaches .

The Potential benefits of EFQM Excellence Model:

- Holistic
- Student's focus
- Results oriented
- Benchmarking and sharing good practice
- Involvement: cross-departmental working
- Complementary to other assessments, inspections etc
- Integration, association, consistency
- Provides greater clarity of what, how, why
- Improving communication

Initial Conclusions:

- The use of the EFQM Excellence Model, with some adaptation/interpretation, is working.
- It is not a swift solution - but a method for driving organizational change.
- Excellence Model in coordination with other management tools, models auditing frameworks can be used.
- The implementation of EFQM model have a clear approach to process identification and management, supported by values based leadership, Improvement in Higher Education.
- The way of working that enables the organization to achieve balanced Student's satisfaction and Achieves Excellence

Model:2

The BaldrIge model:

The Malcolm Baldrige Quality model is a comprehensive model for systematic quality improvement and innovation in colleges and universities. [Obeidallah, Khawaldeh Faleh: page no:4,5]

The Baldrige model is more wide-ranging in scope and is more directly applicable to educational institutions. Baldrige's Education Criteria stress on student learning while identifying education organizations' changeable missions, roles, and programmes. The Criteria view students as key customers and recognize that there may be other customers like parents.

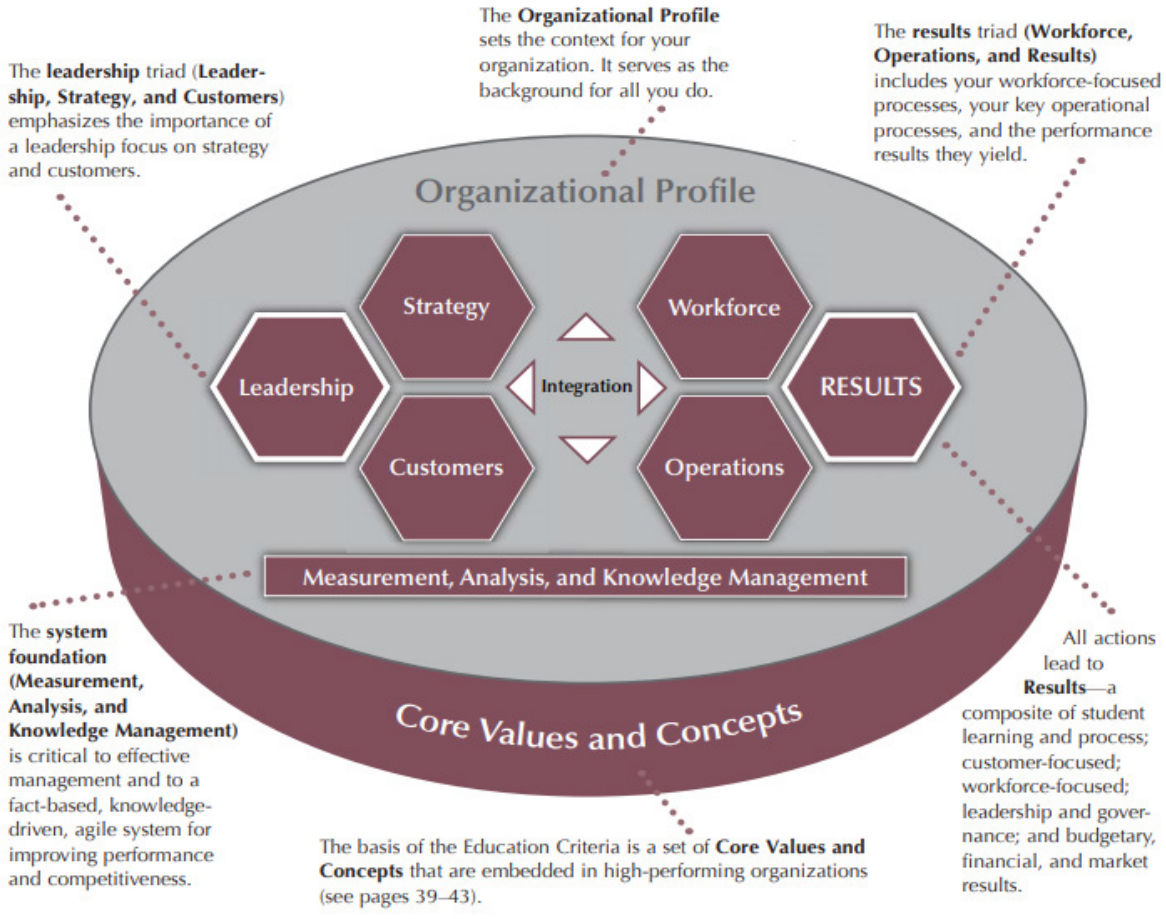
In the Education Criteria, the concept of excellence includes three components:

1. A well-conceived and well-executed assessment strategy.
2. Year wise improvement in key measures and indicators of performance, especially student learning.
3. A demonstrated leadership in performance and improvement relative to similar organizations and appropriate benchmarks.

Since managing for innovation is one of the core values of the Baldrige Criteria for Performance Excellence, it is considered as an effective tool to provide a systematic process for driving and managing change

The model is used to compare their current practices against established standards in other institutions and other economic sectors.

The Baldrige framework:



The above framework helps to manage all the components of organization, so that plans, processes, measures, and actions are reliable. The system's building blocks are the Education Criteria for Performance Excellence, the core values and concepts, and the scoring guidelines.

The function of the Baldrige framework is to facilitate our organization improve and achieve excellence. The questions in the Education Criteria help us explore how we are accomplishing our organization's mission and key objectives in seven critical areas:

1. Leadership
2. Strategy
3. Customers
4. Measurement, analysis, and knowledge management
5. Workforce
6. Operations
7. Results

1. **Leadership**: The Leadership category clarifies how senior leader's personal actions guide sustain organization. It also defines about organization's Governance system and how it fulfills its legal, ethical, and societal responsibilities.

   These are the focused points involved in Leadership
   - Vision, Values, and Mission
   - Promoting Legal and Ethical Behavior
   - Creating a Successful Organization
   - Communication and Organizational Performance
   - Focus on Action
2. **Strategy: O**rganization development, action plans and framing strategic objectives, implementing them, and measures progress is the focuses of this category.
3. **Customers**: This category spotlight on how our organization engages its students and other customers for long-term market success, builds relationships with students and other customers, and uses student and other customer information to get or identify opportunities for innovation.
4. **Measurement, Analysis, and Knowledge Management:** The Measurement, analysis, and Knowledge Management category asks how organization selects, gathers, analyzes, manages, and improves its data, information, and knowledge assets; how it learns; and how it manages information technology.
   - The performance list includes**:**
   - comparative data
   - performance improvement
   - best practices
   - future performance
5. **Workforce:** Assessing workforce capability, capacity needs and builds a workforce environment conducive to high performance is the focus of this category

   Workforce environment:
   - Capability and capacity
   - Work Accomplishment
6. **Operations:** The operations category asks organization's designs, manages, improves, and innovates its educational programs and services and its work processes and how it improves operational effectiveness to deliver value to students and other customers and to achieve ongoing organizational success.

   Work Processes:
   - Program, service, and process design
   - Process management
   - Innovation management
7. **Results:** The results category asks about organization's performance and improvement in all key areas like
   1. Student learning and process results.
   2. Customer-focused results.
   3. Workforce-focused results.

4. Leadership and governance results.

The category asks about performance levels relative to those of competitors and other organizations with similar educational program and service offerings.

Student Learning and Process Results:

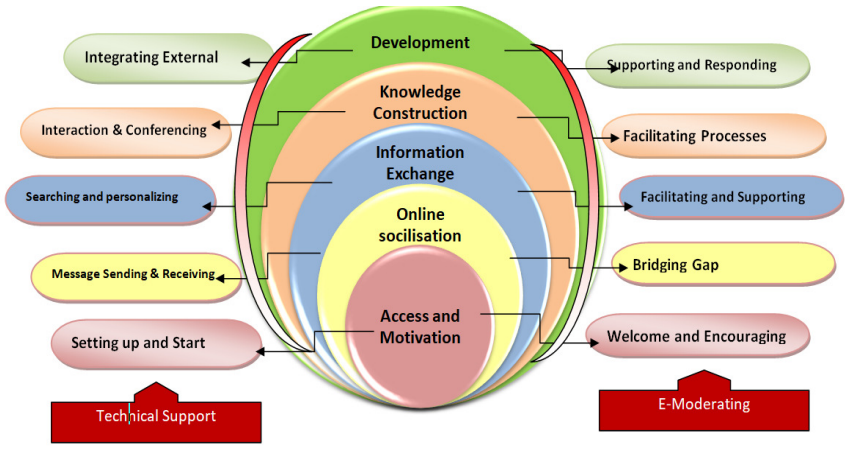
- Student learning and customer-focused service results
- Work process effectiveness results

Model:3

E-learning: The five-stage model

The five-stage approach to e-moderating has provided a simple model upon which to base online learning design in higher education. It concerns that the model is becoming a dominant discourse, being adapted as a template for the design of all online teaching and learning, to the exclusion of other ideas. It is suggested that the five-stage model may not be the universal remedy.

In the 5 stage model each stage identifies technical and e-moderating skills required, with an interactivity bar operating along the steps that indicates unstable amounts of interaction expected between the participants.



The bar is displayed with thicker color when passing from stage three (information exchange), throughout stage four (knowledge construction) and into stage five (development). Participants have to progress through each of the five stages as part of online networking and group working. The structure is designed to support a productive approach to learning.

While this online learning methods are often adopted in higher education the five-stage model has not reflected the potential available to use e-learning as part of an integrated approach that includes face-to-face delivery.

STAGE	STUDENT ACTIVITIES	TUTOR ACTIVITIES
Stage 1	Access and motivation Setting up system and accessing	Welcome and encouragement guidance on where to find technical support
Stage 2	On-line socialization sending and receiving messages	Introductions Ice-breakers Ground rules Netiquette
Stage 3	Information exchange carrying out activities Reporting and discussing findings	• Facilitate structured activities • Assign roles and responsibilities • Support use of learning materials • Encourage discussions • Summarize findings and/or outcomes
Stage 4	• Knowledge construction Conferencing Course-related discussions • Critical thinking applied to subject material • Making connections between models and work-based learning	• Facilitate open activities • Facilitate the process • Asking questions • Encourage reflection. • Tutor is very active at this stage.

	experiences	
Stage 5	• Use of conferencing in a strategic way • Integration of CMC into other forms of learning . • Reflection on learning processes • Students become critical of the medium	• Tutors may be involved at different stages of the students' learning processes and this model can be used to identify the typical activities.

Issues of 5 stage model:

The model may not readily transfer to different learning situations but there are further concerns that the model is dominating discourse in learning technologies, being seen as a template for the design of all online teaching and learning environments regardless of the context.

There is a broad concern that the reflection of models of learning and teaching, while meeting organization needs for transferable, multi-use products, will dominate and stifle professional practice development.

The course failed to take account of individual learning styles and the rigid application of its design was difficult to challenge.

Through the model is applied slavishly as a rigid course, opportunities to develop flexibility and reflexivity are lost.

Using this model in practice some issues arise:

If the student doesn't succeed in setting up their access to the system then they won't be able to learn via an on-line system.

The tutor manages and support students in the same group who may be at different stages in the Five Step Model

The underlying philosophy and program design will have a bearing on how far students develop along this process.

Objective 3: Suggestions by the authors:

ABCD analysis for EFQM model, Baldridge model and Five stage models.

	Advantages	**Benefits**	**Constraints**	**Disadvantages**
EFQM model	Holistic	Universal applicability	Dependent on 2 variables	Only some phases are more apt for Educational institution
	Provides greater clarity of what, how, why	Student's focus	Practically difficult to implement in higher education	Conclusions are based on secondary data
	Cross-departmental working	Integration, association, consistency	Model is lengthy	Time consuming
	Complementary to other assessments, inspections etc	Balanced Student's satisfaction& Achievers Excellence	Cost	Can be implemented using huge Funds from UGC. etc

	Advantages	Benefits	Constraints	Disadvantages
Baldrige Model	Leadership qualities	Vision, Values, and Mission	Difficult to find and implement	Mostly theoretical based
	Strategy	Action plans & implementation	Difficult to implement in developing countries	Limited sample survey(UAE higher education)
	Customers	Brand Ambassadors(students)	Cost	Only for Granted Universities
	Workforce	Work Accomplishment	Integration	Total integration could be a problem for bigger Institutions

	Advantages	Benefits	Constraints	Disadvantages
Five Stage Model	Online Information exchange	Apt for higher education	Online	If the student doesn't succeed in setting up their access to the system then they won't be able to learn via an on-line system.
	Critical thinking applied to subject material Making	• Facilitate open activities • Facilitate the process • Asking questions • Encourage reflection.	Restricted material	Student restricts themselves to the material provided rather than learning subject
	Encouragement and Guidance on technical support	Borderless education system	Indifferent to student potential	Different learners may be at different stages in this development process
	Cost Benefit	Less infrastructure required	Rigid course	Not flexible

Objective 4: Author's opinion and Conclusion :

Higher Education in developing countries needs to be transformed. The system governing and monitoring higher education needs a revamp. An honest self assessment is the need of the day. Towards this, there is an urgent need to inculcate Intellectual Intelligence in Higher education.

- Quality in Work place. (Good Infrastructure, wide & ventilated buildings)
- Quality in physical environment (Green and Neat surroundings).
- Quality in Faculty (Qualified, Intellectual Intelligence driven Progressive trained and expert faculty)
- Quality in Primary Systems (Sound and effective curriculum & management systems)
- Quality in Decision making (Sound, timely & Effective decision making).

- Quality in feedback & Correction systems (Effective Feedback & reporting systems. Self corrections systems need to be implemented).
- Reward system for adherence of Quality and quality improvement at work.
- Practice quality at work as a voluntary ethic and not an avoidable head ache.

IV. REFERENCES

1. Brusoni, Manuela, et al. "The concept of excellence in higher education." *Occasional Paper* 20 (2014).
2. Obeidallah, Khawaldeh Faleh. "The Effectiveness of Applying the Baldrige Quality Standards in Higher Education to Achieve Competitive Advantage: Case Study on Jordanian Private Universities." *International Journal of Business and Management* 12.11 (2017): 218.
3. Pramod Ambadasrao Pawar. "NAAC Reaccreditation : Challenges in Higher Education " *epitome journals* (201).

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

9.

NAAC FRAMEWORK -THE ROAD AHEAD FOR EXCELLENCE IN EDUCATION

Uma Dixit [1], G.S.Mini [2], K.Srilatha [3], S.Sailakshmi [4]

[1]Assistant Professor, Department of Mathematics, University Post Graduate College, Secunderabad, Osmania University, Hyderabad, India. umadixit@gmail.com

[2] Assistant Professor, Department of Mathematics, Bhavan's Vivekananda College, Sainikpuri, Secunderabad, India. gs.mini@rediffmail.com

[3,4] Lecturer, Department of Mathematics, Bhavan's Vivekananda College, Sainikpuri Secunderabad, India. sreejhakura@gmail.com, sirikondasailakshmi@gmail.com

ABSTRACT

The importance of assessment for quality assurance in the higher educational institutions has become prominent globally. Hence the University Grants Commission (UGC), with the prime agenda of assessment and accreditation set up NAAC – The National Assessment and Accreditation Council, under the UGC Act to perform the task of performance evaluations. In this paper, we have discussed the reasons why every higher education institution should go through the process of NAAC accreditation. We have looked at the seven criteria for NAAC and their insights , the benefits for the institutions, students and the society.

Keywords : NAAC, Quality assurance , UGC, Assessment, Accreditation.

1. Introduction

The development and progress of any country is very much dependent on the education system of the country. To be able to face global challenges we need to do a bit of revamp of the system according to the changing global scenario. The diversity in India on account of geographic, climatic, religious, linguistic and other factors contributes to the diversity in the educational system. The importance of assessment for quality assurance in the higher educational institutions has become prominent globally. Hence the NAAC was set up in 1994 under the UGC Act to ensure quality in the higher institution educations (see [3]). It is an autonomous body of the UGC with the prime agenda of assessment and accreditation of higher institution educations in the country. The NAAC has been continuously engaged in the promotion of quality in higher institution educations in the country, making a significant difference in the Higher Education System in India.

The NAAC framework was made keeping in mind the contribution of higher education to National Development, encouraging international Competencies among Students as Higher education institutes can collaborate with industries, network with the agencies and develop competent-learning and skilled work which is crucial to the success of students in the job market. The organizations also have to shoulder the responsibility of inculcating desirable value systems among students. And finally promoting the use of technology.

1.1 Vision of NAAC

Quality must be the priority factor of higher education in India through a combination of self and external quality evaluation, promotion and sustenance initiatives and Promoting organizations self-improvement, encouraging innovation and strengthening the urge to excel.

1.2 Mission of NAAC

- To ensure regular assessment and accreditation of higher education institutions.
- To inculcate an academic atmosphere for promoting the quality of teaching-learning and research in higher education institutions.
- To inculcate an atmosphere of innovations, accountability and self-evaluation in higher education.
- To encourage high quality research studies, training programmes , consultancy, and extension.

NAAC follows a process which is on par with by Quality Assurance agencies across the world (see [1], [2]) which consists of self assessment by the respective organisations and also with peer assessment.

2. Major reasons for opting for assessment and accreditation by NAAC

- Recognition of quality of excellence of the Educational Bodies

- Self-improvement
- Building an image for the institute in order to attract students from other places
- Recognition Internationally

The process of assessment and accreditation has created a momentum among the academic fraternity on issues relating to quality and this is because of the successful partnership of NAAC and the respective Governments of the country. NAAC assessment lays focus on the institutional developments with reference to three aspects: Quality initiative, Quality sustenance and Quality enhancement.

The process of NAAC assessment and accredition is a combination of self evaluation and external peer evaluation which mainly looks into the developmental aspects of the educational bodies in the context of quality (see [4]). The self-evaluation proforma of NAAC provided as "manuals for self study" uses different inputs, processes and outputs and facilitates educational bodies to evaluate their strengths, weaknesses and areas for improvement. All stakeholders - management, faculty members, administrative staff, students, parents, employers, community and alumni have a role to play in the making of the self study report (S.S.R).This involvement ensures the transparency of the whole exercise and also gives a direction to self-improvement of the institution, of innovation and the urge to excel.

The Revised Assessment and Accreditation Framework is launched in July 2017. It had made efforts to remain relevant and globally acceptable, The Revised Framework is more ICT intensive and 'outcome based'.

There is Paradigm Shift making it ICT enabled, objective and transparent.

The Shift is:

- from qualitative peer judgement to data based quantitative indicator evaluation
- towards intensive use of ICT
- by reduction in the number of questions, size of the report, visit days, and so on
- in terms of improving benchmarking quality improvement tool.

The procedure is made easier by

- having a Pre-qualifier for peer team visit, as 30% of system generated score.
- introducing System Generated Score with combination of online evaluation which is about 70% and peer judgement which is about 30%.
- introducing a third party validation of data.
- by differences in the metrics, weightages and benchmarks to autonomous colleges, universities and affiliated/constituent colleges.
- revising several metrics to bring in more participation of students and alumni in the assessment process.

3. Focus of Assessment

The NAAC continues with its focus on quality culture of the institution in terms of Quality Initiatives, Quality Sustenance and Quality Enhancement.

NAAC identified the following seven criteria to serve as the basis for assessment of HEIs:

3.1 Curricular Aspects

The Key Aspects of Curricular Aspects include Curriculum Planning and Implementation, Academic flexibility, Curriculum improvisations and Feedback System. The organizations must provide a wide range of programme options and courses that are in tune with the emerging national and international trends and relevant to the local requirements.

3.2 Teaching-Learning and Evaluation

Every institution serves students of varied backgrounds with varied abilities through teaching learning processes The most important concern of this criterion is to evaluate the performance of teachers and students constantly. The Key Aspects of Teaching-Learning and Evaluation are Student Enrolment and Profile, Catering to Student Diversity, Evaluation Process and Reforms, Student Performance and Learning Outcomes.

3.3 Research, Consultancy and Extension

The most important aspect of this criterion is to contribute to the community. The Key Aspects of Research, Consultancy and Extension are Promotion of Research, Research Facilities, Research Publications and Awards, , Extension Activities and Institutional Social Responsibility, Collaborations. The institution must promote research culture among faculty and students.

3.4 Infrastructure and Learning Resources

The focus is on the best use of the facilities available in an organization, which helps improve the quality of academic programmes on the campus. The key aspects are Physical Facilities, Library, IT Infrastructure and Maintenance of Facilities.

3.5 Student Support and Progression

The key aspects are Student Mentoring and Support, Student Progression, Student Participation and Activities of students.

3.6 Governance, Leadership and Management

The key aspects are Institutional Vision and Leadership, Strategy Development and Deployment, Strategies for Faculty Empowerment , Financial Management and Resource utilisation optimally, Internal Quality Assurance System.

3.7 Innovations and Best Practice

The innovative practice improves the interest of the student and the institution for internal quality assurance, inclusive practices and stakeholder relationships. The key aspects are Environment Consciousness, Innovations and Best Practices**.**

4. Internal quality assurance cell - IQAC

Evaluating quality in the field of education, the focus of the students has been observed to be on the facilities provided, of the teachers on the teaching-learning processes, of the management and the parents on the scores/grades achieved and of the prospective employers on the nature of the output (passed-out students). Prasad [7], a noted educationist associated with the premier quality assurance agency in India, NAAC, has observed that „quality" is not only the agenda of the NAAC but also the nation's collective agenda.

NAAC, [9] proposed that there should be an Internal Quality Assurance Cell (IQAC) in every accredited institution as a post-accreditation quality sustenance measure. Its primary concern is to maintain quality up-gradation of the institution. It works towards the improvement of quality and sustenance. The key assignment of the IQAC is 'to develop a systematic improvement in the overall performance of institutions'. Therefore, in the post-accreditation period, it maintains the academic excellence of an institution.

The assessment process takes into consideration the diversity in the kinds of institutions. Higher education institutes have been grouped under three categories namely, Universities, Autonomous Colleges and Affiliated/Constituent Colleges. The assessment process will be carried out in three stages. It consists of three main parts, viz., Self Study Report (SSR), Student Satisfaction Survey and the Peer Team Report. The SSR has 137 Metrics for Universities for the seven Criteria described.

The SSR has two kinds of Metrics: one, that requires quantifiable facts and figures as data which have been indicated as 'quantitative metrics'; and, those metrics requiring descriptive responses and are accordingly named 'qualitative metrics'. The Quantitative Metrics add up to about 70% and the remaining about 30% are Qualitative Metrics .The data submitted on Quantitative Metrics will be subjected to validation exercise with the help of Data Validation and Verification process done by NAAC. After the institution clears the Pre-qualifier stage, the responses to Qualitative Metrics will be reviewed by the Peer Team.

Any Institution which provides wrong information/data during validation and verification stage will be asked for clarifications. On the basis of clarifications submitted the data will be again sent for Data Validation and Verification process . The process of Data Validation and Verification by NAAC will be done in not more than 30 days.

The Quantitative Metrics of Self Study Report will be sent for Data Validation and Verification Process. After that, a deviation report will be generated. On Manual for Universities NAAC for Quality and Excellence in Higher Education the basis of the Deviation report, the process will proceed further as per the following conditions:

Institutions whose metrics have deviated by ≤ 10% will go for Peer Team Visit with a condition of a Pre-qualifier that the score has to be at least 30% in Quantitative Metrics as per the final score after the Process. If it does not clear the Pre-qualifier score then they may apply in any of the subsequent Windows by submitting the IIQA afresh and with payment of fees.

System Generated Quality Profile is based on statistical analysis of quantitative indicators in the NAAC's quality indicator framework. Graphical presentation of institutional features would be analysed based on quantifiable indicators.

Institutional Grade Sheet Contains the Institutional Grade Sheet which is based on qualitative and quantitative indicators and also student satisfaction survey using existing calculation methods generated by a software. The above three parts will together form "NAAC Accreditation Outcome" document. It is mandatory for the HEIs to display it on their institutional website

5. Advantage of NAAC

5.1 Benefits of NAAC Accreditation to organization

- Institution gets to know its strengths, weaknesses, and opportunities
- Identification of areas of planning and resource allocation
- Institutions initiate innovative and modern methods of teaching and learning.
- New status and identity for institutions.
- Every institute needs to evaluate itself based on NAAC's five yearly re-accreditation procedure to keep itself up-to-date in terms of academic and administrative performance.

5.2 Benefits of NAAC Accreditation to students

- Placements

Any hiring agency would be keen on students with better quality which would make an accredited Institute always a better option.

- Exchange Programs

The possibility of a tie – up with a good university abroad increases if the college is 'A' accredited. There is also a higher chance of incoming exchange / foreign students, both of whom help to build a more culturally diverse environment in college , of which the impact on individual growth cannot be understated.

- Higher education globally

Educational Institutes in other countries would require some assurance about the quality of the student for which an accreditation would be a guiding factor.

- Confidence

Accreditation ensures that the educational programs offered meets a particular standard and so students are trained and guided well enough to face challenges.

5. Conclusion

On the one side there is a great demand for skilled work force, and on the other end there is a huge shortfall of quality in the mushroom growth of higher educational institutions. This is the "two front" challenge facing higher educational institutions of India. There is a mismatch between the technical skills of the Indian graduates and the requirement of the industries. The quality of the output from the higher educational institutions is fragmented.

The concern by many Educational Institutes regarding the future preparedness of our educational system and the quality of the students generated will be addressed by the Agencies like NAAC which will monitor the quality of higher education institutions and also guide them towards excellence. Every institute needs to evaluate itself based on NAAC's five yearly re-accreditation procedure to keep itself up-to date in terms of academic and administrative performance. Our future generations of students and faculty also will have an exposure to quality education. Every institute with an eye for good quality will get itself accredited and improve its overall performance and march towards excellence.

References

[1] https://en.wikipedia.org/wiki/Quality_Assurance_Agency_for_Higher_ Education.
[2] http://siteresources.worldbank.org/INTECALEA/Resources/ ECA_KB35_ Quality_ Assurance_in_Higher_ Education.pdf
[3] http://www.yourarticlelibrary.com/education/role-of-national-assessment- and -accreditation-council-naac-and-its-benefits/45185.
[4] Baird, J. R. (1988). Quality: What should make higher education "higher"? Higher Education Research and Development, 7, 141-152.
[5] Pawan Agarwal, (2006). Higher Education in India: The Need for Change (ICIER Working Paper No. 180). New Delhi: Indian Council for Research on International Economic Relations, June 2006.
[6] http://www.epitomejournals.com Vol. 2, Issue 6, 14th June 2016, ISSN: 2395-6968.
[7] Prasad, V.S. (2006), Higher Education in India Quality Perspectives, The ICFAI University Press. Hyderabad
[8] Green, D. and Harvey, L. (1993), Defining Quality, Assessment and Evaluation in Higher Education, 18(1)
[9] National Assessment and Accreditation Council [NAAC], National Action Plan, NAAC, Bangalore (www.naacindia.org, www.naac.gov.in)

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

10.

CHALLENGES AS PER ICT BASED NAAC FRAMEWORK -ENVIRONMENTAL CONSCIOUSNESS AND SUSTAINABILITY (GREEN PRACTICES)

Mrs.S.Vanitha,
Assistant professor,
Bhavan's Vivekananda College of Science, Humanities and Commerce, Sainikpuri, Secunderabad
E mail: vanithas2003@gmail.com

Abstract

Exploitation of natural resources due to human activities has created a threat and unhealthy environment to survive. Good understanding of nature, using technology in a knowledgeable way and awareness by educational institutions can transform our planet into a healthier place for present and future generations. Many educational institutions focus on academics, research and all round development of students with little importance to environmental issues. NAAC 2017 in its new format has now upgraded the scores distribution for green initiatives based on mode of transport, paperless office, plastic free campus, rain water harvesting, energy conservation, green landscaping, disposal of waste and curriculum on environmental studies. These resources satisfy the stakeholders in achieving a sustainable environment that results in a positive quality of life in the green campus. To understand about the green initiative taken by different institutions secondary data from NAAC and institutional websites were studied. The data showed that, in Telangana the total no of colleges that has undergone NAAC accreditation was 175, out of which 62 colleges have secured 'A' grade, 100 colleges with 'B' grade and 13 colleges were rated with 'C' grade. The study focuses on finding ways and solutions where educational institutions with resource persons like leaders, lecturers, researchers and students take a challenge to create a balance on economic and technological ways to preserve our environment. Many institutions have reflected in their reports the different green initiatives undertaken by them by conducting green audits, construction of rain water harvesting , recycling of waste, sale of eco -friendly Ganesha, campaign like Haritaharam and Swach Bharat and programs related to awareness on green practices. The challenges that are to be faced by educational institutions to retain their stakeholders are continuous monitoring of the green campus, construction of buildings at proper location and area for good ventilation and use of public transport shall retain the quality to attract the students during recruitment. If challenges and solutions are taken care, then each institution can support positively in developing a sustainable India.

Keywords: Energy saving, Environment, Green practices, Stakeholders

Introduction

National Assessment and Accreditation Council (NAAC), an independent National accreditation agency was established in 1994. Its vision is to monitor the quality education imparted by Higher Educational Institutions (HEIs). India with diversified educational systems has led to a concern on the relevance and quality of education provided by various private and autonomous institutions. The core values of NAAC are national development, student's development, to promote the use of information technology, introducing value systems, and competing globally. As per NAAC requirement an institution should maintain its quality by participating, be protective, people friendly, a thinking institution (quality), it must not be a teaching institute but a learning institute.Advancement in technology globally, has sparked the idea of introducing valuation of an institution based on the optimal usage of ICT – Information and Communication Technology. In July 2017, NAAC has revised its process of assessment to make it more scalable, transparent and ICT based to adapt itself to the changing scenario worldwide.[NAAC guidelines]

There are seven different criteria's under NAAC assessment where a institutions performance is evaluated based on its curriculum design, teaching methods, research, infrastructure, student progression, governance and innovative practicesIn its old format, criteria VII was named as Innovation and best practices, but with the revised format the name of the criteria has changed to Institutional values and best practices. This criteria aims to understand the role of institution in awakening the mind of students to be responsible in addressing issues related to gender equity, environmental consciousness, ethics and best practices adopted by the institute. Based on the above important aspects

the assessment is focused on different methods, strategies implemented in a unique way to resolve or create awareness among its stakeholders. These practices when regularized become a distinct and unique quality of the institute and visibly create an ambience that provides a place for its stakeholders to excel.The total weightage is 100 for criteria VII, where 50 marks for institutional values and social responsibility, 30 for best practices and 20 for distinctiveness.[NAAC/AQAR guidelines]

Providing a sustainable energy for our future generations is one of the biggest challenges, as reported by IEA, 2008. By 2030, the global energy need may reach up to 45 percent and becomes a major challenge. Living and nonliving things around us is our environment. One of the prime responsibilities of an individual is to monitor, maintain and sustain our environment as a friendly and healthy place to live. Hence there a need to introduce green practices in educational institutions to make the students know about the methods/protocols involved in decreasing the negative effects of pollutants , energy conservation, reduce the generation of non-degradable wastes, limiting the use of natural resources with sustainable and recyclable resources[Rave,T *etal,*97] .Satisfying the public is to improve the environmental protection activities like saving energy, preventing accumulation of pollutants within the campus and recycling the waste. These efforts undertaken by HEIs will create apositive impact of the institution. Institutional sincere effort onits environmental consciousness and social responsibility when perceived by its stakeholders will lead to a positive outcome [Chen, Y 531-543; Amores-Salvado *etal* 356-365; Wagner, M 1553-1660].Important issues in achieving successful green practices require support from organization and educational institutions. If the support is strong, then the willingness to implement these practices can trigger a healthy performance and can be adopted regularly [Ho *etal*, 3-12; Qi *etal*, 1358-1365]. Few of the challenges faced by the society are (fig 1),

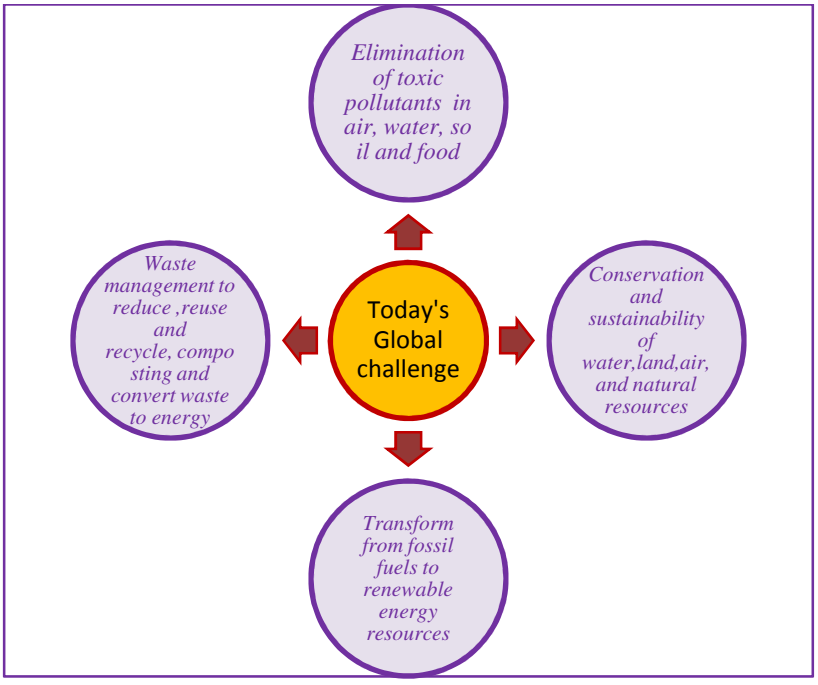


Fig: 1 Challenges for the benefit of Human and conservation of natural resources

Past 20 years there has been a drastic increase in investment towards ICT – Information and Communication technologies where huge response has contributed to its success in many fields.The adoption process, implementation, uses and outcome of general purpose technologies and importantly introduction of ICT by NAAC in all criteria's and institutions following it has advancement of knowledge but still difficult due to its cost.Incase if implemented it will be a great success to the institutions and also to the NAAC team involved in introducing it as an institutional

best practices in its framework.These practices in institutions play a significant role in uplifting the institutions performance in environmental protection and create a realization among its stakeholders in its sustainability. Green practices introduced in the institutions can be categorized as

1. A practice that reduces the harmful effect of pollutants in the campus by recycling the waste (solid, liquid and e-waste), reuse of plastic containers, pollution checks on two and four wheelers, availability and importance of use of eco- friendly products,

2. A practice that positively influence the campus as an environment friendly place for education by its greenery, improving it with tree plantations (Haritaharam) that includes medicinal plants, rain water harvesting pits, vermicomposting, energy conservation(electricity) by use of LED (Light emitting diodes)lights

3. A practice that gives awareness programmes, encouraging students to actively participate in campaigns organized by government or non-government organizations (NGO),competitions among students to realize their responsibility and understanding the need to protect the environment.

The objective of this study was to analyze the green practices followed by HEIs and to identify any new practice introduced by them, but not included in NAAC format.

Methodology

For the present study, NAAC accredited colleges (UG, PG and both) were selected from Telangana state. For this selection last accredited year was considered. Secondary data was collected from SSR (Self-Study Reports), AQARs (Annual Quality Assurance Reports), IQACRs (Internal Quality Assurance Cell Reports) and other relevant information from college websites. From each institution criteria VII was chosen to understand the green practices followed by them.

Table 1: Comparison of green practices of NAAC accredited (A/B/C) colleges

Name of the college	Grade/ Year/ Cycle no	Green practice	Campus area	College website
Lords Institute of Engineering and Technology	A/2016 /1	Tree plantation, Importance of rain forest conservation, Swach Bharat Abhyan campaign 'Clean India', Energy conservation -use of renewable energy, Water harvesting, Waste management.	10.02 acres	http://www.lords.ac.in/
Osmania University College for Women (Autonomous)	A/2015/3	Paper recycling, Tree plantation, Vermi composting, Green house energy conservation, Rain water harvesting, Environmental awareness and waste management program, Ban on plastic, Massive tree plantation with NSS to increase green cover. **Best practice**: Environment protection and management **Success** Vermi compost was performed with the left over waste from food, vegetable scraps, peels and other wet waste, Paper was sent for recycling to ITC, Flowers from the garden were used to decorate during functions and for bouquet preparations. **Limitations:** Leaves ,twigs being organic in nature should not be incinerated but teaching supporting staff was	42 acres	www.oucwkoti.ac.in/

		difficult, No direct funds, Regular participation in awareness programs was difficult due to insufficient time.		
CMR College of Engineering and technology	A/2014/1	Plastic free zone, Waste recycling, Rain water harvesting, Awareness programs, LED monitors and lights	29,863 sq.m	http://www.cmrcet.ac.in/
Raja BahadurVenkata Rama Reddy (R.B.V.R.R) Women's College (Autonomous)	A/2013/3	Energy conservation activities Save paper and save water, No plastic use, Vermi compost, World Environment day celebration, Green plantation programme, **Green Audit,** Solar power campus, Water harvesting structures, Curriculum on Green chemistry and sustainability, ECO club. **Success:** Reduced carbon footprint, Reduced power bills, Increased water table, Increased carbon sequestration, **Limitation** Limited space and time, Introduction of additional practices.	3.5 acres	www.rbvrrwomenscollege.net/
St. Francis College for Women (Autonomous)	A/2012/3	Prakriti club-planting saplings, Harita haram, Green Bazar to sell herbal products, 4 year project Herbeno VOW (value out of waste), Swach Bharat programs, Reduced use of paper and plastic	8 acres	http://www.sfc.ac.in/
Bhavan's Vivekananda College of Science, Humanities and Commerce	A/2012/1	Tree plantations- Haritaharam, Swach Bharat, Pollution check for two and four wheelers, Rain water harvesting structures, greEnergy club activities, Sale of Eco friendly Ganeshas Recycling of paper by ITC Vermicomposting	10acres	http://www.bhavansvc.org/
GhulamAhmed College of Education	B++/2017/2	Good number of neem trees, Plastic free zone, Vermi compost of leftover food, dry leaves used in compost, Rain water harvesting, Lawn and gardens maintained regularly, Natural manure used for plants.	24 acres	http://www.gacoe.ac.in/#
Government Degree College for Women	B+/2016/3	Mass tree plantation program- Telangana Ku Harithaharam, Green Audit, Sale of clay Ganesha.	2.32 acres	gdcwbpthyd@gmail.com
Holy Mary Institute of Technology and	B/2015/1	Conservation of energy Renewable energy use	11.5 acres	www.hits.ac.in

Science		Water harvesting Check dam construction Waste management Plantation of trees		
St. Mary's College	B/2014/2	Haritha haram- Tree plantation programme, Participation in 2 day camp "Climate change and Water".	3642 sq.mt	info@stmaryscollege.in
Andhra MahilaSabha Arts & Science College for Women (Autonomous)	B/2013/2	Telangana Ku Haritaharam Planting trees Environmental rallies and awareness lectures Plastic free zone.	4.11 acres	www.ascwams@yahoo.co.in
Badu Jagjivan Ram Government Degree College	C/2015/1	Water harvesting Tree plantation programme	3 acres	https://.www.bjrdg.in
Government Degree College, Koratla	C/2014/1	Tree plantation programme	101171.41sq.mt	www.gdckoratla.com

Total number of institutions that has undergone NAAC accreditation in Telangana state was 175, out of which 62 colleges have been assessed with 'A' grade, 100 colleges with 'B' grade and 13 colleges were assessed with 'C' grade [NAAC report].From the obtained list, 175 colleges were segregated into three sets as per their grades (A/B/C) obtained. From each set of grades colleges were selected for comparison based on the year of accreditation received. Authentic data from SSR, AQARs and IQACRs reports from each college was downloaded and data regarding college name, grade obtained, year, number of cycles undergone, website, area of the campus and criteria VII details were thoroughly read and information related to environment consciousness and sustainability was analyzed, compiled and represented in the Table [1].

The total area of Telangana state is 112,077 Km^2 (43,273 Sq.mt). Campus area of "A" grade colleges were between 3.5 acres to 42 acres. "B" grade colleges the area was 2.32 to 24 acres whereas "C" grade colleges was less. Comparing the green practices followed by these institutions were tree plantation programmes (Haritaharam) more common and awareness activities related to it. Most of the institutions have constructed rain water harvesting structures to conserve water, plastic free zone in their campus, vermicomposting a continuous monitoring process was followed by "A" grade colleges than others. Swatch Bharat campaign was also followed in many institutions. Green Audit was organized only by R.B.V.R.R College (A grade). Osmania University College (A grade) has highlighted one its best practice as Environment Protection and Management, where they have reflected its success as well its limitation. The major limitation is that allotment of sufficient time for staff and students in these activities, secondly special funds rising is also a concern. Weightage for green practices in NAAC format has made different HEIs to take the environment issues seriously and have started to invest its effort to create awareness among students and sustain its campus a holistic and healthy place for good education, excellence in a eco-friendly way.

Few more Ways to be environment friendly:

1. To reduce environmental impact of waste, try to learn different methods adopted by waste management organizations and try to find a better protocol to implement in the campus at a reduced cost.

2. By reducing the usage of mobile phones the damage to batteries will decline or replace it with rechargeable batteries that can reduce the generation of e waste and reduce the excess need for power.

3. Taking classes outdoor at least once in a month, may reduce the power supply use and also give a chance for students to admire and appreciate the beauty of nature.

4. Advice to students to use both sides of paper.

Conclusion

Using ICT, NAAC itself has initiated a Green practice, by making the submission of SSR (Self Study Report) online. Therefore, it can be concluded that,

integrating various pieces of collected data belonging to different institutions shows the effort taken to adopt, implement, and practice regularly to increase quality of life and quantitatively creating students as a responsible citizens. Sustainable green energy in the campus may be appreciated and applauded by different groups of stakeholders that include students, parents, teachers, leaders and finally the institution gets a remarkable position in this competitive world.If these practices are not taken care, it can result in environmental crisis and may become a continuous crisis. Ultimately, lot of man power and financial support may be needed to refresh and restructure these problems to make our environment a healthy and safe place to survive.

References:

[1]. http://www.naac.gov.in/manuals_ass_accrd.asp.

[2]. www.naac.gov.in/AQAR.asp.

[3]. Rave,T., Goetze,F. & Larch, M. (2011). The determinants of environmental innovations and patenting : Germany reconsidered. Paper # 97.

[4]. Chen, Y. (2008).The driver of green innovation and green image: Green core competence. J. Bus. Ethics, 81, 531 -543.

[5]. Amores-Salvado, J.; Castro, M.; Navas-lopez. (2014) J. Green corporate image: Moderating the connection between environmental product innovation and firm performance. J. Clean. Prod, 83, 356-365.

[6]. Wagner, M (2010). The role of corporate sustainability performance for economic performance: A firm level analysis of moderation effects. Ecol. Econ. 69, 1553-1560.

[7]. Ho, Y-H., Lin, C-Y., & Chiang, S-H. (2009). Organizational determinants of green innovation implementation in the logistics industry. International Journal of Organizational Innovation, 2(1), 3-12.

[8] Qi, G.Y., Shen, L.Y., Zeng, S.X., & Jorge, O.J. (2010). T Journal of Cleaner Production, 18, 1358-1365.

[9]. http://www.naac.gov.in/Universities_Colleges.asp.

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

11.

GREEN CAMPUS – A MULTIFACETED ECO-FRIENDLY GREEN PRACTICE APPROACH

S. Chaitanya kumari [1] and Dr. P. Naga Padma [2]*
Department of Microbiology
Bhavan's Vivekananda College of sciences, Humanities and Commerce, Sainikpuri, Secunderabad-94, Telangana State, India.
2*Corresponding Author: naga_padmathota@yahoo.com

ABSTRACT

Green Campus is a term that encompasses different aspects relating to safe environment like conservation of energy and other resources, reducing carbon foot print, improving green cover with its diversity, enhancing environmental quality in education. Sustenance of any higher education institutions (HEIs) in the present times depends wholly on its environmental consciousness as green campus approach is not only gaining prominence but such campus students are also getting a cutting edge over others. Taking this aspect into consideration the present paper highlighted the various aspects which can be adopted by the educational institutions to green their campus considering the NAAC criteria as their basis. Teaching and Learning practices should use electronic devices and abandon total use of paper. Curriculum should include aspects related to eco-friendly diverse approaches and methods in all fields. Research should always be an environment safe and cost effective one, with stress on use of local resources and solution for local problems. Infrastructure designs should be green involving use of natural ventilation for cooling, use of solar energy and also involve storm water management. As the strong back bone of any educational institutions is student strength this should be used in greening campus. Student should be educated on various aspects of environment and also taught to adopt eco friendly measures. Administrative measures should incorporate green audit component and regularly conduct training programs for employees to inculcate green culture. Best practices of green campus should be to plant selective useful plants, strategically motivate staff and students to buy green, support green business and stick to the three word mantra –Reduce, Recycle and Reuse.

KEYWORDS: Green campus, Criteria, HEIs, Eco-friendly

INTRODUCTION

Green campus can be defined as a place where environmentally responsible practice and education go hand in hand. Green campus is designed model environmental communities where academic programs, business practices, operational functions and people are interlinked, providing educational and practical value to the institution [Corset e*t al.,* 1-58]. Investing in campus greening using different green practices is an economic, educational, and environmental investment with handsome returns both financial and social.

Green practices is an important issue that needs to be given serious attention by everyone living in this world, because everything that we need for our survival and well-being depends either directly or indirectly on our natural environment. This can be possible when everyone needs to do their part i.e. the government, the private sector, civil society and the people. It is also the responsibility of all educational institutions to go green. HEIs need to focus on educating and producing graduates who value sustainability of green practices in their daily lives [Sustainability at Harvard-study, 119].

An institution of higher learning will groom students, who will be any nation's future citizens. The seeds of change that are sown on any campuses will grow and ultimately disperse far afield. The Green Campus concept gives opportunity to any institution to take the lead in rethinking its environmental culture and developing new paradigms for solving problems that are local, national, and global in nature. Greening the campus is about sweeping away wasteful inefficiencies and using in positive way or positive changes. Many of the changes mostly address the daily, practical aspects of campus life like correct waste disposal, handling, and proper disposal of spent chemicals and materials associated with labs and automotive shops; purchase of environmentally friendly supplies; effective recycling programs [Timpson *et al.,* 147]. Changes don't have to happen all at once, but can be done in a step-wise manner.

The NAAC methodology of accreditation involves seven criteria of assessment and if green practices are adopted in all these criteria then that would be an

ideal green campus. The present paper deals with these aspects.

Green Practices- Curricular Aspects

The Green campus is a golden opportunity to develop an exciting new curriculum that encourages students to take the lead in creating positive change and at the same time, to gain invaluable, marketable skills with stress of environment friendly aspect. Curricular design with stress on ecological aspects, environment friendly procedures, sustainability etc. will be of practical help to students. Students can team up with faculty and experienced personnel from government agencies, utilities, and private industry to conduct environmental evaluations of the campus, initially their locality and then spread to wider areas to develop an eco-friendly environment.

Green Practices- Teaching and Learning

The campus teaching and learning green activities promote conduct of class tests, assignments etc. in paper less mode. Students should be exposed through seminars, workshops to various green practices which can be followed for better life both in present and in future. Visits to biodiversity habitats could not only make students enjoy the beauty of nature but also realize the importance of its maintenance.

Green Practices-Research

Environmental oriented research has been the most successful one everywhere and this is the need of the hour. It is a popular area because of the income associated with research grants and the opportunities for publishing. Teamwork is required more and more to bring out real breakthroughs in research, especially on the cutting edge [Feldbaum *et al*., 15]. Encouragement and motivation of good research is possible by suitable incentives, awards and rewards by the administration.

Research should concentrate on solving local problems like mosquito menace, weed rich polluted water bodies, accumulated solid wastes etc. Research should utilize locally available materials to produce environmentally safe products like green synthesis of nanoparticles having diverse applications.

Green Practices-Infrastructure and Learning resources

A campus is often readily designed to improve as green buildings with natural ventilation, for efficient cooling much to avoid the use of air conditioners which are not eco-friendly. The practice of placing windows or other transparent media and reflective surfaces in buildings allows for natural light which provides effective internal illumination for building users so that the power consumption could be reduced. The built-up of buildings at a convenient distance from one another, linked up by paved roads or pathways dotted with green. Indeed green is often the compelling color around. Well-mown lawns or well-tended flower patches may also be there. A green-house too, a learning resource no doubt, is almost mandatory to add to the environment happy atmosphere.

Rain (Roof) water harvesting system can be installed wherein rain water is channeled to the existing underground well and the same is used for flushing purposes in some of the toilets in the college. In the adopted village NSS volunteers can work on rain water harvesting in the houses and soak pits.

LED lights can be installed in places where energy consumption is high. Solar power has to be used and so infrastructure has to be modified to install solar panels where ever necessary. Master switches can be installed in all the classrooms and floors and they are labeled so that, only those required can be switched on.

Other form of green initiatives implemented by HEIs are: use of recycled content materials, high-efficiency lighting, low-flow plumbing fixtures, protection of existing ornamental trees and landscape features and building bicycle paths. Some green initiative practices are to segregate the waste and maintain an active recycling program in collaboration with the campus waste carrier [Green Energy Education Act, 957].

Green Practices- Student Progression

Various measures are to be followed to reduce, recycle and reuse solid waste to make our campuses eco-friendly. In the orientation program students are informed and instructed about measures to save energy in the lecture rooms and college premises. All the stakeholders are motivated and oriented to save energy and water. NSS volunteers and members of Green science club can be assigned the task of monitoring and reinforcing energy saving habits, audits like those of wastes, water, electricity etc.

Students should be motivated to take up projects like "Why Waste World" a green initiative undertaken by a group of college students [Christmann P *et al.,* 663-880]. The aim of this recycling campaign was to encourage students and staff to go green for the good of the environment and build a sustainable lifestyle for future generations through the recycling of canteen as well as household waste.

Green Practices- Governance, Leadership and Management

The offices and departments of the institution are governed on the principles of Participation and transparency. Green audit is an environmentally friendly practice by reducing the carbon foot print by less printing of paper, video conferencing and interviews. Green audit is all about corporate responsibility. It uncovers the truth about statements made by governments and companies with regard to the effects of environmental pollution [Dunlap, R.E. *et al*.,529-563].The aim of green audit is to review the measures taken by the organization to combat Pollution. Similar type of audits should be done for water and power by teams comprising of students and staff to conserve the scarce resources. These aspects should be included in the policies of the institution.

Green Healthy practice

The staff and students should inculcate the healthy practice of switching off the fans and lights when not required. All the air conditioners should be maintained at or above 24 degree Celsius temperature, to reduce non eco-friendly emissions. Students turn off their computers, lights, appliances and heat before leaving campus.

A project titled Save Energy or Zero Waste can be undertaken in the campus.

Efforts for Carbon neutrality have to be adopted with the practice of simple measures like using two sides of paper for printing, using waste paper for rough work, preferring recycled paper usage[Burritt, R.L. *et al*., 1262-1275].In the library, scanned copies of question papers are to be kept instead of hard copies.

Waste management

A project on Waste Management can be undertaken where dry and wet waste is segregated. The wet waste is taken to the compost pit for converting into organic manure. The organic manure is used in campus for plants. Dry waste is collected and recycled. E-waste has to be taken care properly and given to an efficient recycler to reduce pollution.

Plantation

The methodology involves developing geo and plant-specific bio-fertilizers that provide NPK through culture. This helps in cost-effectiveness and nature-friendly management of plantation. Plantation should include air purifying plants like *Azadiracta indica* (neem). Useful fruit plants like guava, custard apple (Seethaphal) and *Mangifera indica* (mango) etc should be planted. Bordering strips of unused land with snake grass on the campus can provide more oxygen. Plantation of useful medicinal plants like tulasi, money plant, chrysanthemum, Aloe Vera should be encouraged[Chen, Y.S.*et al*.,331–339].As a result of the natural vegetation that forms the green cover there is scope for recharge of ground water and prevention of excess water flow during monsoon season. A dug well and soaking pits dug near the trees can help in the replenishment of ground water. However, organized planting of trees, bushes and lawns initially may be expensive but quite rewarding, enriching the beauty of the campus.

Bold Sticker Reminder

The students can place the stickers on light switch boards to remind everyone to conserve energy by turning off the lights. Sleep is good-should be followed and all computers should always be kept in sleep/standby mode, when not in use.

Promoting Campus-Wide Energy Conservation

An event where all the key buildings are cut off from power supply for one-half hour to promote awareness of energy conservation. This aspect can be continued at home also. Alumni students are also encouraged to follow the same practice in their organizations to spread the awareness campaign.

Farming

The HEIs can offer work-study and summer internship positions for students who are interested in working with the community supported agriculture program. Closeness to nature can inculcate that concern for nature and promote eco-friendly approach.

Reusable Bottles

The HEIs can purchase and distributes reusable aluminum water bottles to all of the approximately 1,000 first year students. The new students are expected to bring the bottles to all orientation events in order to reduce plastic bottle and cup waste [McIntosh, K *et al*., 327-352].

Recycled Notebooks

The HEIs can take steps to reduce paper consumption by starting a student project that is turning discarded paper printed on one side into 100-page notebooks. Each notebook is bound with a cover made from a cereal box which is being supplied by empty cereal boxes from residence halls.

Conservation Incentives Program

The students and staff can use the refillable mugs on campus by coming up with catchy marketing ideas like Get Mugged etc. The goal is to encourage behavioral change so that students and citizens adopt

this reuse practice [Tan, C.L *et al.*, 371-379], thereby saving paper resources and decreasing waste created from the use of disposable coffee cups, thus reducing carbon foot print.

Computer Reuse

Computers from the various labs can be collected once they are no longer in use and be donated to the needy people and students who cannot afford to buy them, thus putting them to effective reuse.

Green Roofs and Green zones

A green roof is a roof of a building that is partially or completely covered with vegetation and soil. Green roofs provide energy savings, water runoff reduction, increased roof lifespan, aesthetic improvements, and other environmental benefits. Students can be trained in development and maintenance of Roof gardens especially vegetable gardens.

Using native Plants in Campus Landscaping can help to combat invasive species threats [Trung, D.N. *et al*., 109-116]. Growth of adaptive plants that are drought tolerant and adapted to the harsh desert conditions and so require minimal watering and fertilizers should be grown in campus.

Green Laboratories

The HEIs can launch a green chemistry lab which uses less toxic solvents and reagents, and teaches students to consider the environmental cost of the chemistry they are learning by evaluating potential hazards of chemical processes. The other life science labs should also adopt green practices, take proper disposal care of their bio wastes, use and produce eco-friendly materials.

CONCLUSION

Green practices will harvest benefits in long run where HEIs can save money and also provides a healthy study atmosphere for students. Green strategies adopted by HEIs make them globally competitive and inculcate new paradigms among students in solving problems that are local, national and global in nature. Green practices have become very successful, so the HEIs in India should adopt more green initiatives to inculcate the green culture among students for a better future and environment sustenance.

ACKNOWLEGMENT

The authors are grateful to the management of Bhavan's Vivekananda College for giving this opportunity.

REFERENCES

1. Burritt, R.L. & Saka, C. Environmental management accounting applications and eco-efficiency: Case studies from Japan. *Journal of Cleaner Production* 2006, 14 (14): 1262-1275.
2. Chen, Y.S., Lai, S.B. & Wen, C.T. The influence of green innovation performance on corporate advantage in Taiwan. *Journal of Business Ethics* 2006, 67: 331–339.
3. Christmann P. Effects of 'best practices' of environmental management on cost competitiveness: The role of complementary assets. *Academy of Management Journal* 2000, 43: 663-880.
4. Cortese,Anthony,. Mobilizing Higher Education for a Healthy and Sustainable Society. Presented at the New England Board of Higher Education Leadership Forum, May 4, 2009:1-58.
5. Dunlap, R.E. & York, R. The globalization of environmental concern and the limits of the post materialist values explanation: Evidence from four multinational surveys. *The* Sociological *Quarterly,* 2008, 49: 529-563.
6. Feldbaum,Mindy and Holly States.Going Green: The vital role of community colleges in building a sustainabl e future and green workforce*National Council for Workforce Education and the Academy for Educational De velopment,* 2009,p:15.
7. Green Energy Education Act of H.R. Rep. No. 957, 111th Cong., 1st Sess. Retrieved 2009 June 10.
8. McIntosh, K., Horner, R.H. & Sugai, G. Sustainability of systems-level evidence-based practices in schools: Current knowledge and future directions. In *Handbook of Positive Behavior Support*, edited by W. Sailor, G. Dunlap, G. Sugai & R.H. Horner, 2009,327-352).New York: Springer.
9. Sustainability at Harvard.Environmental Studies E-119 -Sustainable Buildings:Design,Construction and Operations.Harvard University,2010,119.
10. Tan, C.L., Goh, Y.N. & Chan, H.S, The determinants of competitiveness in quality: A study among the Malaysian private higher education institutions. *Problems and Perspectives in Management* 2015, 13(2): 371-379.
11. Timpson, William. M., Brian Dunbar, Gailmarie Kimmel, Brett Bruyere Peter Newman, and Hillary Mizia. 147 Practical Tips for Teaching Sustainability: *Connecting the Environment, the Economy, and Society. Madison, WI: Atwood Publishing*, 2006.
12. Trung, D.N. & Kumar, S. Resource use and waste management in Vietnam hotel industry. *Journal of Cleaner Production*, 2005.13: 109-116.

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

12.

AN ICT FRAMEWORK FOR GREEN PRACTICES (GO GREEN ALL)

N Bhaskar[1]
Research Scholar, Dept. of Computer Science,
Rayaseema University,
Department of Computer Science,
Kurnool, A.P.

G. Mahesh Kumar[2]
Assistant Professor,
Bhavan's Vivekananda College,
Sainikpuri, Secunderabad, Telangana.

M V Ramanamurthy[3]
Professor & Head, Dept. Of Mathematics,
MGIT, Hyderabad, Telangana

G. Chandra Mohan Reddy[4]
MGIT, Hyderabad, Telangana

ABSTRACT
The objective of Information and Communication Technology (ICT) is to maintain a sustainable system that reduce paper work and makes the information available for ever. Everyone should minimize the utilization of natural resources for the future of the beings on the earth. The system must be sophisticated to protect the data, safe transmission of data and availability. The information technology is only the way to reduce the utilization of paper resources, recycling of waste and increase the life of forests, plants and nature. There are some tools available in ICT to minimize or stop using paper resources for transaction processing and authentication of the resource user.
Key Words: IT, ICT, GICT (Green ICT), Sustainability of resources, Green practices, Security.

Introduction

As per the NAAC new framework 2017, there are best practices to be inculcated by institutions to maintain and teach students to follow. One of the best practices an institution should follow, which has got more preference in assessment is "Green Practices". This practice is not only to the colleges but also a best practice for the future of the world.

There are 4 categories of green practices to be observed by NAAC. They are :

- Improve green environment in the campus
- Recycling of waste for the sustainability of the future
- Minimization of resource utilization from which we can save nature from damage
- Practices of pollution control as green practices

Green audit, use of renewable energy and e-waste management has been a part of the NAAC marking system earlier too. But under the revised framework, environment effectiveness and sustainability have been explicitly introduced under the 7th criteria.

The staff and students of educational institutions can practice the following to promote green practices. These are seriously observed by NAAC during assessment. They are :

a) Bicycles b) Public Transport c) Pedestrian Friendly Roads.

Every campus is expected to maintain: a) Plastic free campus b) Paperless office c) Green landscaping with trees and plants.

Another way of green practice is minimization of paper usage. It reduces lot of waste papers and increases the plantation. It impact on environment sustainability and nature will be protected.

Literature Survey

There is necessitating willingness to protect our natural world from environmental issues for current and future generations. Green Information and Communication Technology is a pioneering approach of using ICT related to the environment protection and sustainability of ICT in future as well as consists of practices to achieve corporate social responsibility by minimizing carbon footprint, ICT waste and by conserving energy. This paper analyzes the rational of Green ICT in education and finds critical success factors for Green ICT implementation based on survey of selected educational institutes and interviews with academic key experts in India. This paper presents the national mission for Green India derived from detailed analysis of the pertinent literature. This study identified seven critical success factors which are essential for sustainability of ICT in future [Kavita Suryawanshi, 36-38].

In general, the study of green practices suggests that participating student community leaders believe that

there are benefits to going green and most stakeholders will support greening efforts. However, limited resources (money, time, information, and personnel) present substantial barriers to lead and manage greener institutions [Dennis P. Veronese, 1-21].

A question will arises in educators curriculum that has the potential to transform students' thinking and actions, with a reductive and non-substantive pedagogy. The objective of different sustainability curricular positions of pedagogical models that vary decidedly in their emphasis on the prerogative of the required prior knowledge and beliefs. The different sustainable curricula are: engagement of the learner, and the potential for critical thinking and transformative learning. It is observed that a transformative pedagogy will remove the paradox, helping societies become more sustainable [Carol Scarff Seatter and Kim Ceulemans;47-70].

One of the challenges facing by developing countries today is that of preparing their societies and governments for globalization and the information and communication adoption. Policy-makers, educationists, non-governmental organizations, academics, and ordinary citizens are increasingly concerned to inventing and implementing economy in documentation and information communication systems. Globalization and innovations in technology have led to an increased use of ICTs in all sectors along with education sector. Uses of ICTs in education are widespread and are continually in progress. It is generally believed that ICTs can increase of communication power with teachers and learners, making the excellent contributions to learning and achieve ICT tools implementation [. Meenakshi;3-8].

Best Practices

The best practices at institutions/ Universities to implement green practices[Himanshoo Kumar Sharma;78-81].
There are 2 modes of ICT tool introduction in educational institutions. The organization can choose any one based on their institute environment.

- Implementing within their institutional LAN
- Adopting ICT tools

Implementing within LAN : The organization can establish an environment within the institute Local Area Network (LAN). The institute can establish ICT environment by combining the existing computer infrastructure with Internet/WiFi by using LCD projector. The different tools can be used with internet are :

- Google Forms
- Google Class Room
- Massive Open Online Courses(MOOCs)
- The teachers can create their class videos and display
- Can organize online tests (either LAN based or Internet based)
- Communicating the information through internet based tools (e-mail, SMS, Face Book, WhatsApp, etc.)
- Online/Cloud based Academic Management System

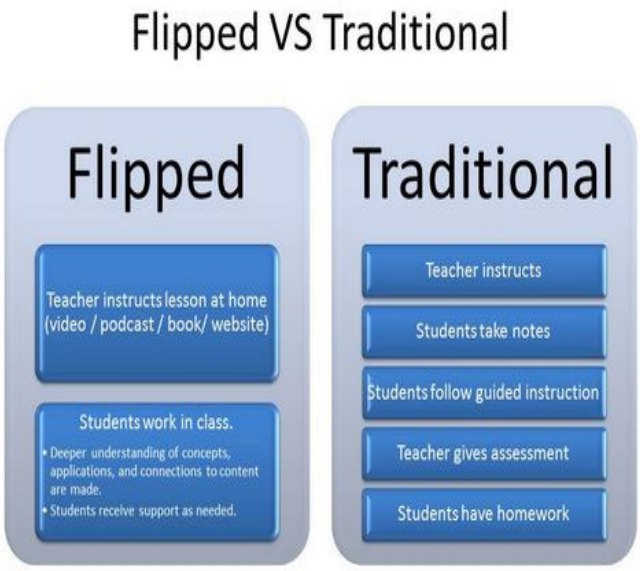
Adopting ICT tools: There are several tools available to introduce ICT practices in the institution. Some of the important, affordable and sustainable tool are:

- Smart Board
- **Flipped Classroom**
- WaCom

Flipped Classroom

The Flipped Classroom is a notion which inverts the traditional classroom environments, concentrating on students teaching themselves over the conceptual knowledge by taking part in active learning. Instead of teachers teaching for hours together in classes and merely delivering the information, the instructional contents are delivered, often online, to the students before delivering the lecture and the classroom is used for diving deeper into the curriculum facilitating the knowledge they have using experiments, projects, and peer-to-peer interactions.

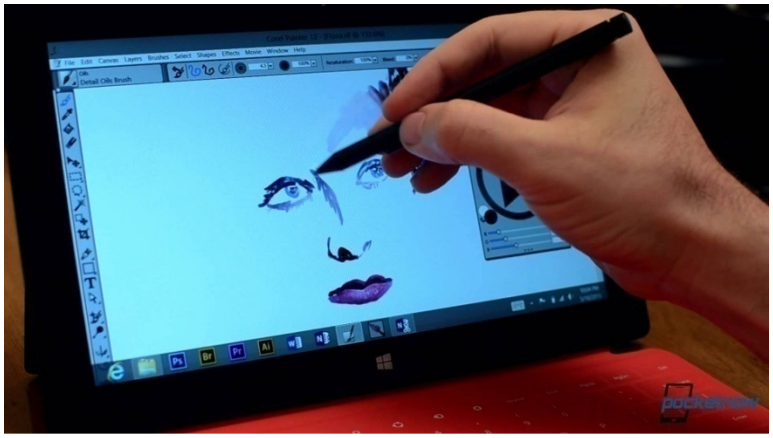
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)



WaCom Tablet

A **Wacom tablet** is a type of input device for the computer that is extremely useful for all photographers and graphic designers, mathematicians, life science teachers. While the most common way of interacting with a computer is with a mouse and keyboard, this isn't always the most intuitive.

With a light pen and free downloadable software to suit the requirement. Wacom Tablet is developed to introduce our skills and ideas to students in the class. It can be used in different applications like drawing pictures, writing formulas, industry profession lists, Statistical application areas, etc. The images/pictures created in WaCom tablet can be stored and reused for future lasses of the faculty.



Suggested Environment

It is our proposal to have the general environment to every candidate/person to have a common portal as specified in Fig. 1. The education institutions can encourage or establish the environment mentioned Fig. 2. It enables the institutions to have a common portal to access complete student information throughout their careen in the institution. A proposed interface that implement the common source of information access through a secured environment is depicted in the Fig. 3.

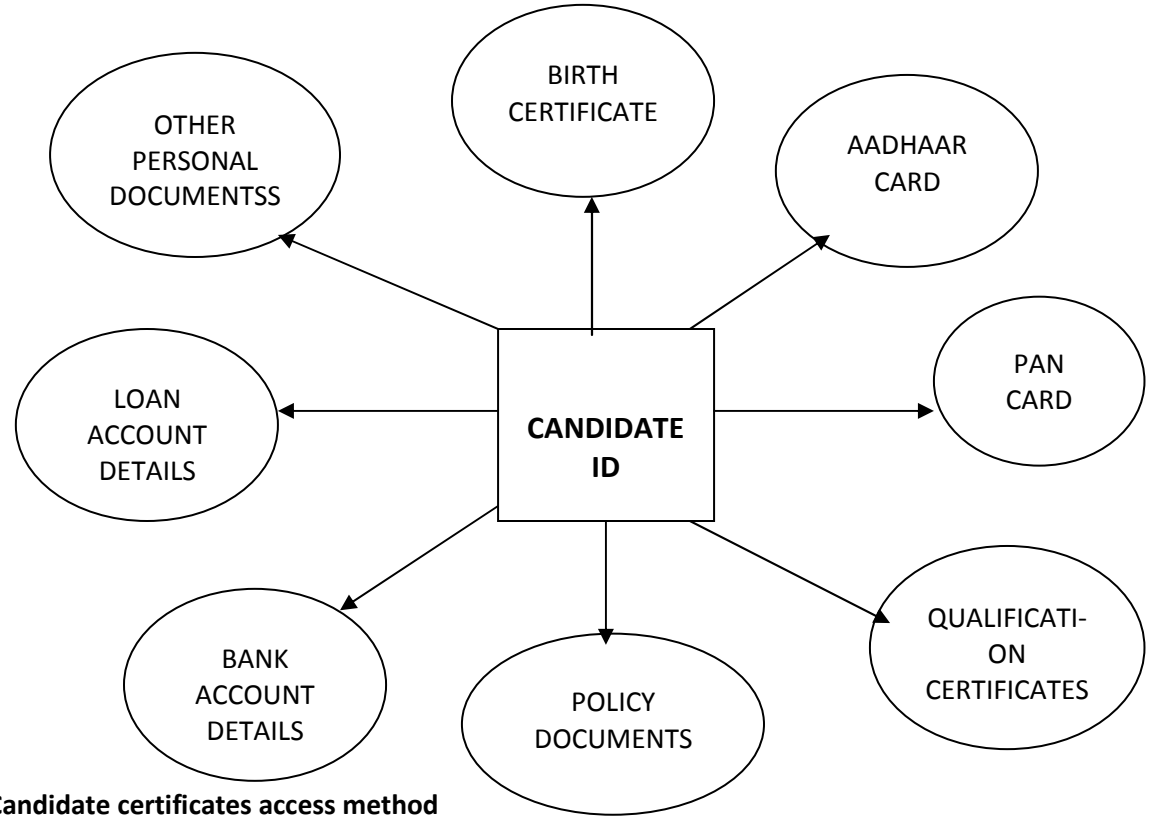


Fig. 1: Candidate certificates access method

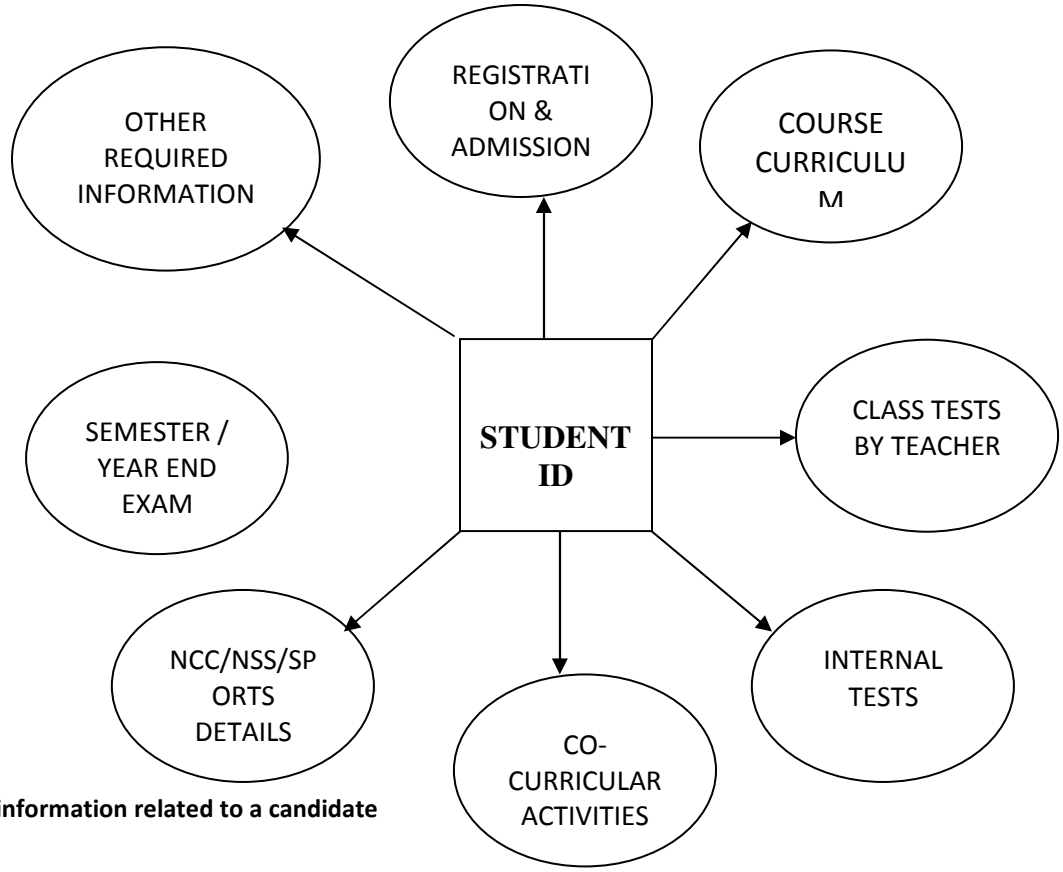


Fig. 2 : Institution information related to a candidate

AN INTERFACE TO ACCESS CANDIDATE DOCUMENTS
CANDIDATE ID : <Test Box>
AUTHENTICATION SOURCE : <Combo Box>
AUTHENTICATION ID : <Protected Text Box>
VERIFICATION CODE : <Text Box>
After verification success, candidate displayed with the following details
SELECT CERTIFICATE : <Combo Box>
SELECT TYPE OF COMMUNICATION : <Combo Box> ***(email, face book, Whats App, Online Application Submission, etc.)***
Once the option is selected, the candidate is directed to the respective portal process
Fig. 3: Candidate access the documents from a single point

The developer of the environment should take care about 2 security measures to improve the candidates trust. The primary security implementation should be done at private authentication at personal details. The second security implementation should be available from the third party which is a random authentication mechanism through the public element.

Conclusion

The idea behind green practices with NAAC new framework is to make institutions and students to practice echo friendly procedures. Improving greenery at institutions creates the pleasant atmosphere for studies and students can continue the green practices in future. ICT approach is improving the availability of data, best practices and lot of paper usage can be reduced, as well as used paper storage can be saved. It is advised to link all student or person related information with common authenticated source of information, i.e. UID, PAN, AADHAAR NUMBER, and COMMON ID throughout the education of a person. Enabling ICT in educational institutions will also be useful for NAAC, NBA and ABET accreditations.

The Government and Educational Institutions should encourage and accept e-practices of staff, students as strong element of green practices. The Government as well as Institutions should convert their activities and communication by using ICT practices to encourage the people towards new era and can indirectly support for the natural resources preservation.

References

1. Kavita Suryawanshi, Sameer Narkhede (2014), Green ICT at Higher Education Institution: Solution for Sustenance of ICT in Future, *Volume 107 – No 14, PP- 36-38.*

2. Dennis P. Veronese (2013), School leaders, sustainability, and green school practices: An elicitation study using the Theory of Planned Behavior, Vol. 4, January 2013,pp 1-21

3. Carol Scarff Seatter, Kim Ceulemans (2017), Teaching Sustainability in Higher Education: Pedagogical Styles that Make a Difference, Volume 47, No. 2, 2017, pages 47 – 70.

4. Meenakshi (2013), Importance of ICT in Education, e-ISSN: 2320–7388,p-ISSN: 2320–737X Volume 1, Issue 4, PP 03-08.

5. Himanshoo Kumar Sharma (2015), Role of ICT in Improving the Excellence of Education, ISSN : 0975-3397 Vol. 7 No.8, pp 78-81.

❑❑❑

13.

GREEN PRACTICES FOR A SUSTAINABLE ENVIRONMENT – A REVIEW

Prathyusha.Y
Lecture in Biochemistry,
St.Mary's college, Hyderabad
prathyusha.yamarthi@gmail.com
Phone No: 9866965501

ABSTRACT
Green Practices (GPs) are those that improve the quality of our environment by conserving our natural resources & energies and by reducing pollution& toxic wastes. This environmental practice helps us not to leave a carbon footprint but to give a healthy and sustainable environment for the present and future generations.

In this globalized world where the resources are getting scarce and the population is increasing day by day there is a demand to conserve and sustain our environment. This paper gives a descriptive study about importance of sustainable environment and the role of education sector to maintain it through green initiatives or practices (GPs). The rule of 3R's (Reduce, Recycle, Reuse) in all sectors is keeping the world on sustainable grounds. This improvement is seen not just in sustaining environment but also in organizational performance. The demand for EMS (Environment Management System) and ISO 14001 registration has provoked different sectors around the globe to inculcate GPs to reduce pollution and consumption of toxic materials, as well proper waste management.

Keywords: Green Practices, waste management, environment management, green campus, education system, conservation, recycling, non-toxic, UI Metric norms, sustainability.

1. Introduction

The drastic change in climatic conditions has heightened the interests recently on environmental concerns around the globe in different sectors. Directly or indirectly these sectors are responsible for destroying the natural resources and affecting the mankind. This is the reason why many government bodies and NGO's implemented various regulatory policies to reduce the harmful consequences. Even in the world economic forum, 2018 water scarcity and climatic changes were considered one among the top global economic risks. Implementing these Green practices (GPs) in various sectors will dwindle down the harmful effect and enhance the sustainability of the environment.

Green practices are those that improve the quality of environment by conserving our natural resources and reducing pollution & toxic wastes. Increasing the consciousness of ecological responsibility by pursuing knowledge and practicing it will protect the environment for the present and future generations. Many organizations like IFC, CERES, UNEP, UNFCC, CEE etc work towards sustaining environment. Since most sectors are still not realizing the consequences of Global warming, these Green Practices were made mandate by general bodies like EMS (Environmental Management System) for corporate and industries.

Education sector is the key for the development of society. The scope of environmental challenges is ranging from local level to global level. Educational institutions build the gap between these two and thrive for improving sustainable environment. Increase in population and change in life style are increasing the severity of the adverse effects. Educational institutions prepares individuals both socially and mentally to solve the problems in the society.

2. GPs in Academics:

Education sectors represent underlying values of the society. They help society to move towards a sustainable existence.

2.1. Society and Education:

Scientific and Technological development caused severe and almost permanent damage to the environment. A transformative change is required for a more sustainable future, as responsible citizens we can think critically and reflect on our acts and lifestyles that collectively results in positive environmental and social change (Fien et al. 2004). Research and education plays a significant role in finding ways to maintain a sustainable environment. One among sustainable development goals for

people and planet are minimizing pollution & global warming, sustaining water scarcity, conservation of natural resources (Griggs et al. 2013).

2.2. Need for awareness regarding GPs in education:

University researches provide first alarm against challenges in environment. Over 300 universities in 1990 had established a 10 point action plan for implementing sustainability and environmental literacy in research & operations and in teaching at college and universities (UNESCO, 1990). As a consequence of which universities started implementing many voluntary and committed projects with clear strategies to achieve green campuses.

Campus expansion results in usage of natural resources like water and land, increase in pollution etc, in order to maintain a sustainable and green campus, green practices has to be implemented. Sustainable green practices will help to increase the quality of life by conserving resources and reducing pollution.

Conceptually and technically skilled academicians enhance environmental literacy for their graduates by integrating this sustaining environment subject in their curriculum.

A new pedagogy is required for this of education where individuals develop systematic thinking and critical enquiry about solving environmental issues for sustainable environment.

2.3. GP initiatives by top Universities:

The First step in this strategic approach is taking up initiatives of Green practices. In the present study secondary data was collected to focus on various GPs taken up by different educational institutions cited in ISCN, International Sustainable Campus Networking forum (ISCN, 2014). Few GPs mentioned in the forum are:

- Contextual challenges by **MIT**'s David H. Koch Institute for Integrative Cancer Research that focuses interdisciplinary work that abide demands of both engineers and biologist. This first Leadership in Energy and Environmental Design (LEED) Gold certified research laboratory at MIT achieved significant energy use reductions for example via a cascading ventilation system where air used to cool offices is reused for the hoods in lab areas.
- **EPFL** installed large scale solar windows at its new SwissTech convention center, explaining the potential of translucent "Graetzel solar cells" that can be deployed vertically and are based on their school research.
- **Ball State University** cut its campus carbon footprint nearly to half with its fully operational heating and cooling system in campus.
- UTown campus system at **National University of Singapore** focuses on optimization of natural ventilation throughout the campus.
- **University of Oxford** cut the energy consumption by using motion and daylight sensors, and efficient wireless light switches impact on preservation and efficiency.
- **Yale University** go beyond with department-level sustainability planning on Divinity, Management, and Forestry & Environmental Studies that complement overall university strategic plan of "what gets measured gets managed".

2.4. Role of Education sector in implementing Green Practices:

Implementing Green practices in campus or developing green campuses is nothing but maintaining sustainable environment. Since when the Supreme Court has given directives in 1991 to make environmental sciences as compulsory in under graduation level, academicians work on multiple dimensions to bring awareness among students through education. Higher education has potential to influence government and provide green and sustainable environment. Universities can establish this sustainable development by following these aspects (Raut, Prakash. 2014)

- Teaching
- Research
- Outreach

2.4.1. Teaching: Teaching should be both formal and informal way that must include information regarding environmental issues. Informal ways may also include learning outside the classroom. Students can bring awareness in the society by performing street plays, rallies, exhibitions at ground level. This will inculcate social responsibilities in conserving nature among students. Teaching programs like Seminars, Conferences, Projects, Applied research, lectures, Documentary shows and celebrating environmental days.

2.4.2. Research: It is an integral part of education. It is a process of getting new information or new ideas for addressing and solving environmental challenges. Many aspects in the area of biodiversity, pollution, sources of energy (renewable & Non renewable), toxicity etc are possible areas of research and

resources accounting to it. Several National bodies like UGC, DST, DBT, NEERI, NCL etc does research on environmental issues as well act as funding agencies for projects related to environmental sustainability.

2.4.3. Outreach: The main purpose of this outreach program is to fill the void space between academic initiation and communities. This helps in shaping communities, familiarize students with social and society needs like water scarcity, pollution etc and as well enhance teaching capabilities of the participating universities and colleges.

These aspects will make the student realize the social responsibility towards the environment we are living in and will take initiatives of Green practices that creates a sustainable environment.

3. GPs in other sectors:

3.1. Green Practices in Automotive industry

Green practices are widely implemented in automotive industry because this sector is associated with pollution both during the process of production as well emission while running the vehicle that negatively effects the environment and in turn affecting the organization operation. This has given an area of competition between the firms.

The demand for Environmental Management System (EMS) and ISO 14001 registration has doubled the pressure on automotive industry to implement GPs for overall development. Implementing GPs in 5 different dimensions like Internal Environmental Management (IEM), Technology Integration (TI), Logistic Management (LM), Customer focus (CF), Supplier Focus (SF) along with Green lean six sigma and supply chain management practices has improved the economic and environmental performance of the industry (Nunes et al. 2008) referred to as Green performance Being environmentally effective enhance overall organizational growth.

3.2. Green Human Resource Management (GHRM)

The corporate world is undoubtedly a blue chipper when it comes to environmental issues, call it from industrial wastes to toxic chemicals they are the key stakeholders. "Green HRM is the use of HRM policies to promote the sustainable use of resources within the organization and, more generally promotes the causes of environmental sustainability" (Marhatta & Adhikari. 2013)

Some of the HRM activities include Green recruitment, Green performance management, Green training and development and Green compensation and Green initiatives like construction of Green buildings where natural resources are utilized in construction accommodating rain water harvesting, energy efficiency etc, going with a paperless, recycling and proper waste disposal.

3.3. Green Practices in Hospitality and Tourism:

Restaurants and lodging raise an alarming concern for consumption of resources in tourism sector especially fresh water and sanitation purposes as well dry and wet waste management. Depletion of water levels in most parts of world raises a concern about near future. So, hotels need to plan for the limitations and account for the same.

Green Restaurant Associations are formed that help other restaurateurs to implement Green practices. Few identified Green practices are recycling and composting, energy consumption and water efficient equipment, eco-Friendly cleaning supplies, serving ware and packaging and menu sustainability (EuaHa et al. 2010).

3.4. Green Practices in banking sector:

Though the activities of banking sector are not directly related to environment but impact of customers is substantial. Environment management in banking sector is crucial as they need to do the Environmental Impact Assessment (EIA) for their projects as well adopt Annual Reporting System (ARS) on environmental risks. Apart from this banking sector do Green practices to reduce their part of leaving carbon foot print. Some of which include (Vikas nath et al. 2014) using solar ATMs, utilizing energy generated from windmills for specified branches, Debit and Credit Cards made of recycled plastic and cardboards, decreasing loan interest on Green projects (Green street lending)

This adoption of environmental GPs in different sectors endeavors a sustainable environment.

4. UI Green Metric Norms:

University of Indonesia has initiated world metric rankings for the universities in 2010 with the aim of generating eco friendly environment with green campus and sustainability in universities all over the world. The criteria & Indicators followed by UI Green metric rankings are

- Setting and Infrastructure (SI) (15%)
  The indicators are : Setting of campus, type of higher education institution, number of campus sites, university budget for sustainability effort etc
- Energy and Climate Change (EC) (21%)
  The indicators are: Usage of energy efficient appliances, production of renewable energy inside campus, usage of electricity etc
- Waste (WS) (18%)

The indicators are: Reduction of paper and plastic usage in campus, toxic waste disposal, organic waste treatment etc

- Water (WR) (10%)
  The indicators are: Implementation of water recycling program, treated water consumption etc
- Transportation (TR) (18%)
  The indicators are: Number of cars and buses owned and operated by university, bicycle and pedestrian policy etc
- Education (ED) (18%)
  The indicators are: Courses related to environment and sustainability offered by university, total research funds given to environmental and sustainability research, university-run sustainability website, student organizations related to environment and sustainability etc

*For more information (http://greenmetric.ui.ac.id/criterian-indicator/)

This strategic and defined way of interpretation and analysis will help in focusing on areas where Green practices can be initiated or implemented. A comparative study on universities following and following UI metric norms (Tiyarattanachai et al. 2016) has shown a significant difference in improvement and maintenance of sustainability.

5. Conclusion:

Following GPs in various sectors has had its positive effect in maintaining a sustaining environment. Since higher education has potential impact on maintaining sustainable environment. Role of academicians in bringing awareness among students, the need to implement Green practices is the crucial part. Apart for educationist roles, universities following UI Green Metric world norms have shown a significant difference in maintaining green campus and sustainable environments. Convenience and comfort are the two main factors not allowing people to uptake GPs and the same is carried to future generations. The day we inculcate and implement these GPs as a part of our daily routine is the day we can create green sustainable environment for the present and future generations.

References:

EunHa Jeong and SooCheong Jang, "Effects of restaurant green practices: Which practices are important and effective?" (June 8, 2010). Caesars Hospitality Research Summit. Paper 13. http://digitalscholarship.unlv.edu/hhrc/2010/june2010/13

Filho, L. 2002. Teaching Sustainability at Universities Vol 11 of the series "Environmental Education, Communication and Sustainability." W. Leal Filho, editor. Frankfurt am Main.

Foo, K.Y., A vision on the role of environmental higher education contributing to the sustainable development in Malaysia, Journal of Cleaner Production (2013), http://dx.doi.org/10.1016/j.jclepro.2013.05.014

Griggs, David & Stafford Smith, Mark & Gaffney, Owen & Rockström, Johan & Öhman, Marcus & Shyamsundar, Priya & Steffen, Will & Glaser, Gisbert & Kanie, Norichika & Noble, Ian. (2013). Sustainable Development Goals for People and Planet. Nature. 495. 305-307.

ISCN Secretariat, 2014, Best Practice in Campus Sustainability – Latest Examples from ISCN and GULF Schools, Boston, MA: International Sustainable Campus Network (ISCN).

Marhatta, S., & Adhikari, S. (2013). Green HRM and sustainability. International eJournal of Ongoing Research in Management & IT. www.asmgroup.edu.in/incon/publication/incon13-hr-006pdf

Nunes, Breno & Bennett, David. (2008). Environmental threats and their impacts on the automotive industry. In Abu-Hijleh B, Arif M, Khalil T and Hosni Y (Eds) "Creating and Managing a Knowledge Economy", Proceedings of 17th International Conference of the International Association for Management of Technology, BUID/IAMOT, Dubai, UAE, ISBN 0-9815817-0-6.

Raut, Prakash. (2014). Role of Higher Education Institutions in Environmental Conservation and Sustainable Development: A case study of Shivaji University, Maharashtra, India.. Journal of Environment and Earth Science. 4. 30-34.

Sarah Holdsworth, 2010, A critique of academic development in sustainability for tertiary educators.

Tiyarattanachai, Ronnachai, and Nicholas M. Hollmann. "Green Campus Initiative and Its Impacts on Quality of Life of Stakeholders in Green and Non-Green Campus Universities." *SpringerPlus* 5 (2016): 84. *PMC*. Web. 11 Apr. 2018.

VIKAS NATH, NITIN NAYAK & ANKIT GOEL Green Banking Practices : A Review IMPACT: International Journal of Research in Business Management (IMPACT: IJRBM) ISSN(E): 2321-886X; ISSN(P): 2347-4572 Vol. 2, Issue 4, Apr 2014, 45-62

UNESCO, 1990. The Talloires Declaration. Available online at: http://www.ulsf.org/ programs_tallories.html (accessed June, 2012).

❑❑❑

14.

NEED FOR SKILL DEVELOPMENT PROGRAMS IN THE CURRICULUM

Dr.R.Komala*, Head, Dept. of Physics
Komala.Rajanala@gmail.com
*St. Pious X Degree and PG College for Women, Nacharam, Hyderabad

ABSTRACT:

In India, Skill based education has become a need but not a choice. The demand for skilled professional is very high and the desire to get skilled is low. There is misconception in Indian society that skill based education leads to low incomes and it is for only meant for students who are low in academics. The entire society prefers academic qualification which provides decent jobs with high packages. The biggest challenge is to change the mindset of the people and to create right kind of jobs to the skilled people. Skill development improves the ability and employability of the youth. If the youth are trained in the required skills, they become more job viable, increases productivity and competitiveness at the Industry level, which paves the path for nation development. Inculcating employability skills requires a huge task for our education system to bring in the transition of role from "student" to employee and prepare the youth for the new working world. Only 25 per cent of graduates today are considered "employable" by employers. The biggest challenge comes due to lack of employability skills. Skills required for an individual'sdevelopment in the work environment are communication, presentation, interpersonal skills, team working, technical skills etc.Skill enhancement programs must be included right from high school level based on the interests of the students. Lot of awareness should be created among the public about the need for skill development according to changing market demands. Society should treat academically qualified people and skilled people equally. The only way to bridge gap between Industry and academia is to include skill development programs in curriculum.The courses must be designed as per the requirement of industrial needs and job market.

KEY WORDS : Skill Enhancement Programs, Employability Skills, Job market.

NEED FOR SKILL DEVELOPMENT PROGRAMS:

Skill development enables youth to acquire and succeed in jobs. Skill development must be integrated in the present education system to improve functional and analytical ability to create more opportunities for individuals and also in groups. Skill development should make an individual more self employable rather the job seek seeker. Education integrated with life skills improves the quality of individual and society. Youthwith education and skills are more valued by employers because of the adaptable nature to any kind of technology. It is time for us to give more importance to vocational education rather than conventional education in academics to improve productive employment

Our young generation must realize that "Education is more important but skill is most important", to get employment. It is very much important to get skills and only then we can think of a bright future of a country. Many people are knowledge able but if they are skilled as well, they can get employment and have a good life but if we only have knowledge it's useless without a skill to apply it. A student can get a good knowledge by just reading but skill to apply the knowledge can only be achieved by practice. Education Should Be Skill Based but not marks based or grade based. Sometimes students who score better don't get jobs because they don't have any skill and basic need. Because of this, students having skill will not come up in life. If Education is skill based then students will be able to improve their skills and succeed in their life. Skill development is central in improving productivity. In turn productivity is an important source of improved living standards and growth of the society. Government must make strategies to upgrade and enhance relevance of skills training and to improve access to skills for more women and men based on their capacities. Now Higher Education Institutions in India looking at skill development as an important link in generating employment and in the nation's growth. To promote skill based learning schemes and incentives have to be given by the government. Skill enhanced programs can be given informally and certification should be done by an authorized agency. This creates a support to the studentfor making them self-employed [Prativa Mahapatra and Sandeep Satapathy, 99-104].

Challenges in integrating skills enhanced programs in the curriculum:

Streamlining of skill development programs and education wing of India has to be paid heed to in light of global best practices in education and vocational training. Countries around the world have recognized the very roots of education and skill development, which rest in changing the norms as per the industry's demands and trend of economic development. An internationally accepted training and certification system needs to be evolved to create skilled manpower. There has to be a concrete syllabus to train our manpower. India, so far has been a country that celebrates knowledge and intellect. Skills, however, are not celebrated.

Good educations with skills are the required components for the economic growth and social development of any country.Skilled human resources Increase the quality of work which has direct relation with productivity. Active participation of women should also be in consideration. For bringing awareness among the society government have to take some policies and make some awareness camps. Government should provide huge publicity and required materials for vocational training. It is also important to include vocational or skill based education as a regular curriculum courses for students right from secondary school level.[Ritika,94-96]

CONCLUSION:

India is known for its diversity. It has a population with wide range of socio-economic diversities it is essential to identify, develop and retain skills in developing nations like us while changing with the worlds changing economic scenario. The objective of skill based training is to bridge this knowledge gap between academics and industry.The introduction of skill based education is not an impossible task for academic institutions, it only requires additional man power and infra structural facilities. The additional courses in skill development will make students job ready when the leave institution. The inclusion and designing of skill enhanced coursesmust involve more academicians, administratorsand policy makers.

REFERENCES:

1. Prativa Mahapatra and Sandeep Satapathy. Skills, Schools and Employability: Developing Skill Based Education in Schools of India. Journal of Social Sciences, 2016; 12 (2): 99-104.
2. Ritika. Skill based learning: Necessity for Employability, Imperial Journal of Interdisciplinary Research,2016; vol:2(4):94-96

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

15.

ROLE OF NAAC IN ENHANCEMENT OF QUALITY IN HIGHER EDUCATION

Dr. Seema Ghosh[1],
Assistant Professor, Department of Commerce, Bhavan's Vivekananda College of Science, Humanities and Commerce, Secunderabad.

Dr. M V S Mahendra[2],
Associate Professor, Department of Management Studies, Bhavan's Vivekananda College of Science, Humanities and Commerce, Secunderabad.

Mrs. B Niraimathi[3],
Vice Principal and Head Department of Physics and Electronics, Bhavan's Vivekananda College of Science, Humanities and Commerce, Secunderabad.

ABSTRACT

NAAC is an autonomous institution established by the UGC with an objective of assessing and accrediting institutions of higher education. The overall objective of NAAC is to help the institutions to work continuously and enhance the quality of education. NAAC insists for the quality and excellence in its vision of every Higher Education institution and advocates the Best practices, benchmarking approach for quality enhancement in Higher Education. Given this background an attempt has been made to study and analyze the role of NAAC in enhancing the quality education. Multiple regression has been used to analyse the relationship between quality and NAAC evaluative indicators.

Key words: Quality, Teaching, Education.

Introduction:

Education should be proactive in nature as they satisfy the needs and the expectations of society. They are responsible for setting the worldwide trends. Education is a subjective concept and is comprehended by individuals in various ways. Quality education tries to transmit, create and protect the overhaul learning. It is the powerful instrument which affects the change in the thought process in the society.

It is difficult to define quality particularly when the term is used in a larger perspective for bench marking excellence in higher education (Ratcliff, 117-131; Watty, 213-221). Stephenson in his work he quoted that ''Many people have commented that they are able to recognise quality when they see it, but find it almost impossible to define". Harvey and Newton (149-65) in their article mentioned the personal and social conceptions of quality. According to them the stakeholders differ in their views about quality attributes. The assessment and enhancement of quality in teaching and learning in higher education has become priority. Evaluation of the quality of mentoring programmes in higher education is no exception in this regard (Miller). There are several ways to understanding quality in the context of higher education (Watty 213-221). According to Voreijenstijn, every stakeholder have a keen interest in quality of higher education yet they differ in their perception towards it.

Main stakeholders of education include students, parents, faculty, management of the institution, prospective employers and government. Among these stakeholders, students form the focal group and all other stakeholders exist to bring about transformation in the students. Quality education aims at fulfilling the expectations of the students and nurturing their potential. NAAC is playing a vital role to bring quality in higher education. Given this background an attempt is made to study role of NAAC in enhancing quality education.

Objectives:

1. To study and analyze the NAAC evaluative indicators on higher education.
2. To measure the impact of NAAC indicators on Quality education.

Methodology:

The research is based on the primary data collection from NAAC accredited colleges of Hyderabad and Secunderabad. The data was collected by using structured questionnaire through google forms. The items in the questionnaire were targeted to measure the key variables of the study. The respondents were

requested to rate the statements on each variable dimension on a 5 point Likert scale ranging from 1 being the strongly disagree and 5 being strongly agree. This study analyses seven independent variables namely circular aspects (CA), teaching & learning evaluation (TLE), research and consultancy (RC), student progression (SP), infrastructure (IN), leadership and governance (LG) and best practices (BP) as independent variables. Quality in higher education (QA) is taken as dependent variable. NAAC indicators are taken as criteria for measuring the independent variables. Quality in higher education was operationalized using 9 items which are taken from the study Yoginder Verma (2006). The CA was measured using 5 items, TLE was measured using 6 variables, RC was operationalized using 7 variables, IN was operationalized using 4 variables, SP was measured using 4 variables, LG was measured using 6 variables and BP was operationalized using 2 variables.

Data Analysis:

Table 1: Demographic profile of the respondents:

Particulars	Variables	Frequency	Percentage
Gender	Male	69	44.2
	Female	87	55.8
	Total	**156**	
Designation	Lecturer	48	30.8
	Assistant Professor	66	42.4
	Associate Professor	12	7.6
	Professor	6	3.8
	Student	24	15.4
	Total	**156**	
Experience	Less than 5 years	18	11.5
	5 to 10 years	24	15.4
	10 to 15 years	27	17.3
	15 years and above	72	46.2
	Not relevant	15	9.6
	Total	**156**	
Type of College	University	12	7.6
	Autonomous College	122	78.2
	Affiliated/Constituent College	22	14.2
	Total	**156**	

(Source: Primary Data)

From the above table it is observed that 56% of the respondents are female. 42% of the sample respondents are working as assistant professors and 31% as lecturers. It can be noted that majority of the sample respondents i.e, 46% are having teaching experience of more than 15 years. Majority of the sample respondents are from autonomous colleges.

MODEL SPECIFICATION

Multiple regression model is used to establish the relationship and magnitude between quality in higher education (QA) and circular aspects (CA), teaching & learning evaluation (TLE), research and consultancy (RC), student progression (SP), infrastructure (IN), leadership and governance (LG) and best practices (BP) as independent variables. Therefore for model used in the study is:

$QA = \alpha + \beta_1 CA + \beta_2 TLE + \beta_3 RC + \beta_4 SP + \beta_5 IN + \beta_6 LG + \beta_7 BP + \varepsilon$

where α is intercept, β_1 to β_7 are coefficient of independent variables and ε represents error term.

Table 2: Correlation Matrix

	Quality	Circular	TLE	R&C	SP	IN	L&G	BP
Quality	1.00							
Circular	.799*	1.00						
TLE	.855*	.823*	1.00					
R&C	.745*	.780*	.834*	1.00*				
Student	.684*	.733*	.795*	.740*	1.00			
Infrastructure	.761*	.642*	.679*	.811*	.576*	1.00		
Leadership	.720*	.777*	.831*	.861*	.863*	.689*	1.00	
Best Practices	.624*	.655*	.668*	.682*	.792*	.692*	.821*	1.00

*Pearson correlation is significant at p<0.05 (1-tailed)

Pearson Correlation coefficient is used to determine the strength and direction and association between curriculum aspects, teacher-learning evaluation, research and consultancy, student progression, infrastructure, leadership and governance, best practices and quality in higher education. The results in Table shows al correlations are significant ($p < 0.05$). The correlation coefficient shows a positive relationship between curriculum aspects, teacher-learning evaluation, research and consultancy, student progression, infrastructure, leadership and governance and best practices as independent variable and quality in higher education as dependent variable.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.835(a)	.787	.753	.75744

a Predictors: (Constant), best, curriculum, infra, student, teaching, research, governance

From the 'Model Summary' table the following summary statistics are reported R = .835, R^2= .787, Adjusted R^2 = .753, S_e =.757.

The sample multiple correlation coefficient R =.835 measures the degree of relationship between the

actual values (y_i) and the predicted values ($\acute{y}_i$) of Quality. Because the $\acute{y}_i$ values are obtained as a linear combination of circular aspects, teaching & learning, research and consultancy, student progression, infrastructure, leadership and best practices. The coefficient value of .835 indicates that the relationship between quality and the seven metrics is quite strong and positive.

The sample Coefficient of Determination R-square or R^2 measures the goodness-of-fit of the estimated line in terms of the proportion of the variation in the DV explained by the fitted sample regression equation. Thus, the value of R^2 = .787 simply means that about 78.7% of the variation in Quality is explained or accounted for by the estimated regression line that uses the seven independent variables.

Table 4: ANOVA results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	34.106	7	4.872	8.492	.000(a)
Residual	84.911	148	.574		
Total	119.01	155			

a Predictors: (Constant), best, circular, infra, student, teaching, research, governance
b Dependent Variable: quality

Table 4 shows the results of ANOVA, p = 0.000, If p <0.05 it means the regression model is significant. Since the p value is 0.000 in the present study, we can conclude that the regression model is significant.

Table 5: Coefficients of Multiple Regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	2.331	.346		6.734	.000
Circular	.439	.159	.396	1.501	.004
TLE	.540	.166	.515	3.250	.001
R&C	.230	.206	.215	1.116	.026
Student	.342	.163	.312	.074	.041
Infrastructure	.249	.150	.236	.997	.020
Leadership	.246	.199	.234	1.137	.018
Best Practices	.282	.148	.279	3.256	.001

a Dependent Variable: quality

The coefficient of curriculum aspects, teacher-learning evaluation, research and consultancy, student progression, infrastructure, leadership and governance and best practices are 0.396, 0.515, 0.215, 0.312, 0.236, 0.234 and 0.279 respectively. They all are positive which means that as the magnitude of independent variable increases the magnitude of dependent variable increases. Teaching Learning Evaluation (TLE) has the highest beta which implies that TLE has highest influence on the quality in higher education. Research and consultancy has the lowest influence on the quality in higher education.

Discussion and Conclusions:

The present study developed and tested a model that examines NAAC indicators as the factors that influence quality in higher education. The results of the study are based on the data collected by the researchers. An overall conclusion from the findings of the study states that all the NAAC indictors have shown a positive impact on quality in higher education.

The results in this study suggest that the circular aspects impact on quality in higher education is positive and significant (β = 0.396, p <0.05). This result indicates that flexibility in changing the syllabus will improve the quality in higher education. It is observed that the teaching and learning evaluation impact on quality in higher education is positive and significant (β = 0.515, p <0.05). This result implies that innovative teaching methods and upgradation of teacher profile and systematic evaluation process have a positive impact on quality in higher education.

The results in this study suggest that the research and consultancy influence on quality in higher education is positive and significant (β = 0.215, p <0.05). It is observed that at an under graduate level research and consultancy has less impact on quality in higher education. It is observed that the student progression impact on quality in higher education is positive and significant (β = 0.312, p <0.05). This result implies that student participation and alumni engagement with the institution has a positive impact on quality in higher education.

From the research study it can be noted that the impact of infrastructure on quality in higher education is positive and significant (β = 0.236, p <0.05). This implies the development of physical facilities and library would enhance quality in higher education. It is observed that the leadership and governance impact on quality in higher education is

positive and significant (β = 0.234, p <0.05). This result implies that internal quality assurance system of the institution has a positive impact on quality in higher education. It can be inferred from the study that the impact of best practices on quality in higher education is positive and significant.

The present has some limitations as it is a study of 156 sample respondents mainly working in an autonomous college. Consequently the results may not be generalized.

References:

1. Harvey, L. & Newton, J., 2004, 'Transforming quality evaluation', Quality in Higher Education, 10(2), pp. 149-65.'
2. Miller, A., 2002, Mentoring students and young people. A handbook for effective practice (London, Kogan Page).
3. Newton, J., 2002, 'Views from below: academic coping with quality', Quality in Higher Education, 8(1), pp. 39-61
4. Prasad, V.S. (2006), 'NAAC Year of student participation', NAAC News, Vol. VI, Issue I, NAAC, India
5. Ratcliff, James L. "Dynamic and communicative aspects of quality assurance." Quality in Higher Education 9.2 (2003): 117-131.
6. Stephenson, S.L., 2003, 'Saving quality from quality assurance', paper presented at the 15th International Conference: Assessing Quality in Higher Education, Cape Town
7. Verma, Yoginder. "Teachers Perceptions About Ensuring Students Participation In Enhancing Quality In Higher Education." Student Participation In Quality Enhancement (2007): 19.
8. Vroeijenstijn, T., 1992, 'External quality assessment, servant of two masters? The Netherlands university perspective', in CRAFT, A. (Ed.) Quality Assurance in Higher Education: Proceedings of an international conference Hong Kong, 1991 (London, Falmer Press).
9. Watty, Kim. "When will academics learn about quality?." Quality in Higher Education 9.3 (2003): 213-221.

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

16.

NAAC FRAMEWORK: COMPETITIVE ADVANTAGE OF HIGHER EDUCATION IN GLOBAL SCENARIO

K.PadmaPriya[1]
Lecturer in Computer Science
Bhavan's Vivekananda College, Secunderabad
padmapriya1bvc@gmail.com

K.Murali dhar[2]
Lecturer in Computer Science
Bhavan's Vivekananda College , Secunderabad
dhar321@gmail.com

B.Vijetha[3]
Lecturer in Computer Science
Bhavan's Vivekananda College, Secunderabad
vijetha14@gmail.com

Abstract

The quality of educational institutes has shown a great impact on the introduction of revised NAAC system. Institutions which have been certified to NAAC accreditation body have shown a remarkable increase in the quality of education provided. Institutions have to undergo a tough series of compliance requirements to get accredited to the NAAC body. The quality of education provided by these accredited institutions has taken to the next level. A NAAC system has shown a great impact on the students to enhance their knowledge and skills and serve the nation with utmost satisfaction and integrity. Students have a lot of advantages such as saving huge amount of financial resources by pursuing higher education in India and can get employed into various multinational companies who recruit them. Multinational companies employ them and offer them with a very good package to start up their career.

Global educational opportunities are increasing as students in India prefer to pursue higher education in foreign countries due to advantages of personal growth, broader understanding of the world, with better starting career and more lucrative employment offers. India stands second place that sends its students to study abroad to world famous universities. Ease of admissions in top colleges is restricted to students due to tough competition. Most of the Indian students prefer going to Masters in United States, United Kingdom etc., as there are many reasons and advantages like Commitment for excellence, Research, Academic Flexibility, Lucrative Job Opportunities.

Keywords: Commitment for excellence, Academic Flexibility, Research**,** Lucrative opportunities, NAAC accreditation.

I.INTRODUCTION

Education is the backbone of a nation. So education should be acquired from the cradle to grave. The goal of education in today's world has many learning skills necessary to participate in a global economy. It is generally agreed that gaining certain fundamental knowledge and skills is important for individual success and happiness.

Higher studies has three stages- graduate, post graduate and research programme i.e. M.Phil and Ph.D. Higher education also comprises of technical, general,medical,commercial, engineering, law and other professional. Therefore the scope of operation of higher education is extensive and intensive. It is in demand because it provides a broad prospective of opportunities to the students about almost all the aspect of our life. In the recent year efforts have been made by the commission to regulate the growth of higher education as well as the establishment of new universities and colleges with a analysis to ensure that, higher education grows to meet the genuine needs of the society for trained manpower with appropriate level of professional training.

Higher education produces 'positional goods' that provide access to social prestige and income-earning.

Educational quality and greater demands in higher education can be a result of Globalization, throughout the world.

The demand for education has been affected by Globalization in two parts:

a) The economic rising payoffs to higher education to global, science based, knowledge and

intensive economy make university training more of a necessity to get good jobs.

b) Pressure on universities to provide access to groups are ideals such as demographic ,Socio-political, and democratic.

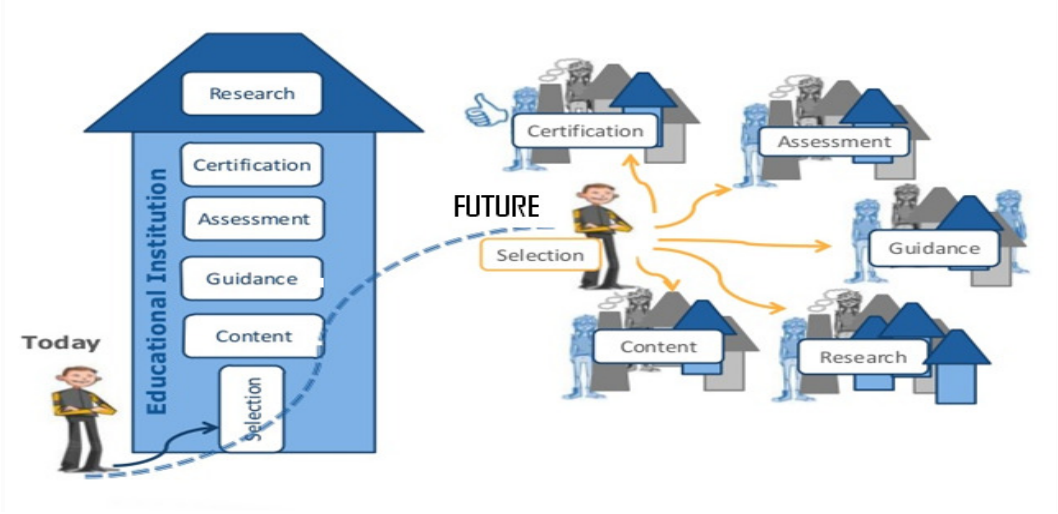
Globalization certainly sounds exciting and makes one feel great and global in many respects such as attitude, approach and changed mind set to compete at international level and finally look for an elevated quality of life. Nations across the world are trying hard to create the right educational environment to promote effective teaching and learning to achieve the unique requirements of globalization.

II. HIGHER EDUCATION IN INDIA

India's major role is to transform students in higher education in empowering logical reflective learners by enhancing their knowledge, abilities, attitudes and skills.

Indian higher education has been continuously developing its quality base since independence but still lack in greater reforms, lagging behind the top world educational institutions.

The Ministry of HRD and University Grants Commission (UGC) has linked the grants, facilities and benefits given to Higher Education Institutions (HEIs) to its performance and quality up-gradation, in a way, it made assessment and accreditation mandatory. HEIs are undergoing the process of accreditation through National Assessment and Accreditation Council (NAAC). India is one of the largest education systems in the world.



III. PROBLEMS FACED BY HIGHER EDUCATION INSTITUTIONS IN INDIA

A large number of institutes are private and self-financed in India for higher education which is more privatized than any advanced countries. Many institutes which are private concentrate on market driven disciplines such as Medical, Engineering, Management, and ignore social science and pure science.

Major weaknesses are

1) Lack of autonomy with respect to admissions, course curriculum etc,

2) Autonomy (instead of affiliation) needs to be provided to Deemed and Private Colleges there by encouraging flexibility.

3) Public Private Partnerships are required for sustained inputs from Industries to deal with the human resource requirements.

4) Higher Education provisioning is now globalised and in many ways.

i) Government-controlled universities are seeking independence from governmental authority, private profit seeking companies have entered the education business, even, that is the reason it has been commercialized.

ii) India including many countries that continues to control the fee structure of their universities causing financial stress to foreign students. Generally these students are made to pay much higher fees than local students. This has a consequence for restricting entry of foreign students into many foreign countries.

iii) In order to facilitate the students, courses are tailored to international requirements besides appointing agents abroad and publicizing the offers widely in the media.

Hence a University is no longer a place where students apply to study. Universities are now actively propaganding foreign students, by publicising a wide variety of strategies to market their courses. The student is now the customer or client.

IV. FRAMEWORK OF HIGHER EDUCATION IN INDIA

Higher education system in India offers facilities like education and training in arts and humanities, mathematical and social sciences, engineering, natural, medicine, national and foreign languages, agriculture, education, law, commerce and management, music and performing arts, culture, communications etc.

The higher education in India has the following framework.

1. **Academic Framework** :

i) Undergraduate level- After 12 years of schooling education¬bachelor's degree is offered in two streams-liberal i.e. a) three years of degree course in arts, science and commerce and b) professional course i.e. agriculture engineering, medicine, and pharmacy.

ii) Postgraduate level- Master's Degree is normally of two¬ years duration in both the liberal and professional course.

iii) Research programme- A research programme i.e. M.Phil¬ and Ph.D is taken after completion of master degree.

2. **Educational Institutions Framework**: The degree and diploma awarding institutions in India for higher education are Central Universities, State Universities, Deemed Universities, Private Universities, Open Universities and Institutes of National Importance.

3. **Framework of regulations**: The institutions imparting higher education at different levels are regulated by

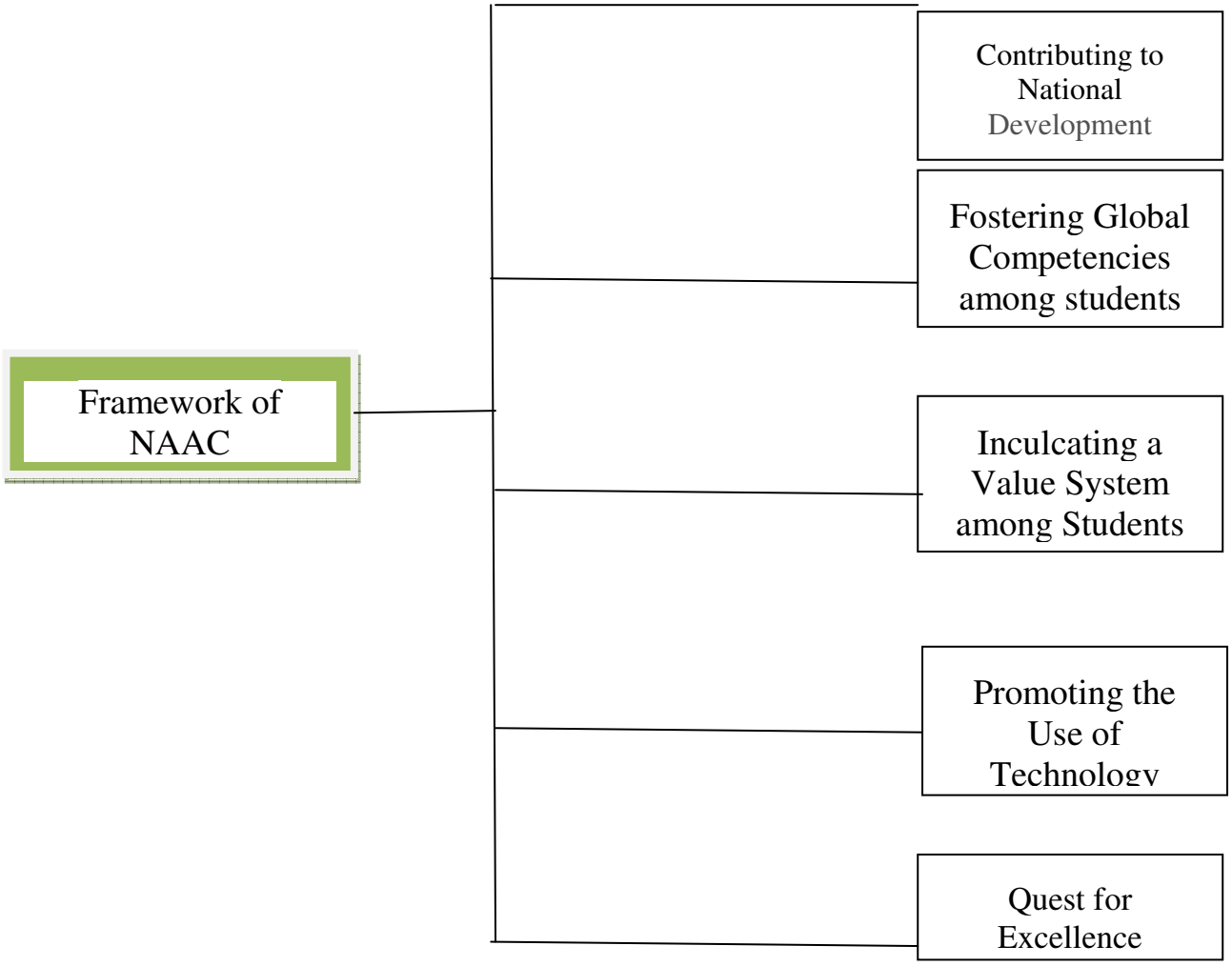
- University Grants Commission (UGC)
- All India Council of Technical Education (AICTE)
- Medical Council of India (MCI)
- India Council for Agriculture Research (ICAR),
- National Council for Teacher Education (NCTE)
- Bar Council of India (BCI), Distance Education Council (DEC)

Framework of NAAC accreditations:

The framework of NAAC accreditation is based on five major points which include

(i) Contributing to National Development
(ii) Fostering Global Competencies among students
(iii) Inculcating a Value System among Students
(iv) Promoting the Use of Technology
(v) Quest for Excellence.

These five core values form the foundation for assessment of institutions that volunteer for accreditation by NAAC.



The seven criteria identified by NAAC which serve as the basis for assessment of Higher Education Institutions are (1) Curricular Aspects (2) Teaching-Learning and Evaluation (3) Research, Consultancy and Extension (4) Governance, Leadership and Management (5) Infrastructure and Learning Resources (6) Student Support and Progression (7) Innovations & Best Practices.

The quality of educational institutes has shown a great impact on the introduction of revised NAAC system. Institutions which have been certified to NAAC accreditation body have shown a remarkable increase in the quality of education provided. Institutions have to undergo a tough series of compliance requirements to get accredited to the NAAC body. The quality of education provided by these accredited institutions has taken to the next level. A NAAC system has shown a great impact on the students to enhance their knowledge and skills and serve the nation with utmost satisfaction and integrity. Students have a lot of advantages such as saving huge amount of financial resources by pursuing higher education in India and can get employed into various multinational companies who recruit them. Multinational companies employ them and offer them with a very good package to start up their career.

India has failed to map higher education's future demand for various skills. Higher education in India suffers from acute scarcity of funds, burden of affiliation, lack of autonomy. In addition to these, higher education has been affected by- poor quality of intake, unsystematic growth of institutions, inadequate student service, wastage in instructional

hours, managerial inefficiencies, overcrowded classroom, heterogeneity of student population and poor course design. There is a higher scope for higher education these days as there are many colleges and universities which are open for higher education. Therefore along with quantitative expansive of education quality must be maintain in relation to the global market. Foreign universities should be encouraged to come to India for setting up, colleges to promote global research activities for sustainable development. It will also improve our educational standards as well as solve the budding problem of enrolment.

V. HIGHER EDUCATION'S GLOBAL SCENARIO IN INDIA

The wider utilization of information technology, giving productivity dimension to education and emphasis on its research and development activities has been impacted by globalization. The higher education system in India suffers from acute scarcity of funds, lack of autonomy, burden of affiliation. The effect of globalization on education brings rapid developments in a) Technology, b) Communication and c) Knowledge economy.

The role of state and restructuring of social welfares education, employment, and agriculture and health system has been affected by Globalization and economic reforms in India.

1.**Educational Institutions Privatization**- There has been an increasing trend towards privatization of higher education in India. The quality and content of the education are industry oriented due to privatization. India is required to set up a chain of educational institutions which are accredited, globally acceptable. The quality can come only from quality teachers and quality infrastructure, under quality leadership.

2. **Gender Equity** - Women literacy rate has grown over the three decades. Women education plays a very important role in the overall development of the country in encouraging the importance of higher education.

3. **Commercialization**- Globalization of higher education is leading to commercialization of the courses existing which leads to profits rather than social justice or the policy of the government. Its goals therefore are to meet the demands of the market.

4. **Faculty education**- Due to globalization of higher education, faculty need to be upgraded by attending different workshops, seminars that enhances to improve qualitative expansion, value based, competency based and ICT based teaching and learning.

5. **Skill based development-**Higher education today is expected to produce skilled and trained workforce who can compete in this global market.

6. **Education policies and procedures** - Due to the reformation in higher education, a new committee like NAAC came into existence that facilitates different educational institutions to provide better quality education.

7. **Entry of Foreign Universities**-. Universities in foreign countries are expected to bring teaching with quality infrastructure, research as well as physical infrastructure. This will attract large scale foreign investments into India and also to an extent reverse brain drain. However, the government will have to create a level playing field for all institutions and also ensure that other factors are considered. Their entry should also increase the qualities in research areas and so on, rather than focus on undergraduate programs.

8. **Communication**-Due to the globalization of higher education, there exists a communication between the industry and college so that students can be trained as per the requirement of the industry.

9. **Quality Research**-Quality research, that pushes the knowledge frontiers forward and explores potential applications, should be a part of a conducive innovation ecosystem that links it to entrepreneurs and industry/society on one side and young students on the other. Nurturing industry institute interaction in a variety of ways such as; joint problem solving, participation in teaching / learning and industry Research Park located on the institution campus with structured opportunities for participation of faculty and students.

10. **E-learning:** Due to globalization in higher education, physically challenged people are benefitted through e-learning. E-learning has more benefits both for the teachers as well as students in preparing study materials, assignments, projects, videos, on-line digital libraries. A foreign language is studied in a cultural context. In a world where the

use of the internet becomes more and more widespread, and English language teachers.

While one can never be sure of how the future would unfold, sustained efforts in some of the emerging areas of scientific research such as nano science, 3D printing, new materials and tailored precision processing, biological manufacturing, hand held devices could lead to very desirable outcomes.

VI. CONCLUSION

The higher education is treated as the educational paradigm at present times. Now a day's students have good scope to acquire higher education because a lot of colleges and universities are opened for higher education. National developments contribute to urgent steps which have to be taken to protect the system from degradation. Therefore along with quantitative expansive of education quality must be maintained in relation to the global market. Higher education provisioning is a fairly capital intensive process. Building your career individually can be contributed by higher education. Universities should provide loans and fellowship for research atmosphere and building. The need for financing of higher education for students, especially those coming from low income households needs special attention. Existing Indian institutions should be collaborated with foreign universities so as to promote global research activities for sustainable development. It will also improve our educational standards as well as solve the budding problem of enrolment. Competition with foreign countries will benefit us and boosts our growth.

VII. REFERENCES

[1] Higher Education: Free degrees to fly, Economist, February 26th-March 4th, 2005, pp 63-65.
[2] Annual Report Ministry of Human Resource Development, Government of India 2006-2007.
[3] Regulating Higher Education' (published in three parts), Indian Express, New Delhi. Edition on July 14th, 15th and 16th, 2005- 8.
[4] Technology Vision for India 2020, TIFAC, Department of Science and Technology, GOI, August 1996.
[5] Higher Education in India. The Need for change. New Delhi, India: Indian Council for Research on International Economic Relations.Higher education article retrieved from http://en.wikipedia.org/wiki/ Higher education.

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

17.

ROLE OF GENDER EQUITY IN HIGHER EDUCATION

P. Rajini,
Lecturer in Statistics,
Bhavans Vivekananda College
Email : rajini_peddi@yahoo.com
9949021332

D. Rajeshwari,
Lecturer in Chemistry,
Bhavans Vivekananda College
Email : rajie.prera@gmail.com
9866751822

ABSTRACT:

The National Assessment and Accreditation Council (NAAC) is an autonomous body which evaluate and credits the institutions of higher education in the country. Its outcome is to analyze the "Quality Status" of an educational institution. There is a rapid growth demand for higher education in the world today. Benchmarks have evolved for ascertaining and assuring quality at different levels of higher education. The Educational system should be gender sensitive to impart knowledge and disseminate skills to the marginalized sections of the society. The framework of NAAC in higher education considering gender equity plays a major role in many issues such as National development, Global competencies and inculcating value systems among students without gender bias. This paper reviews various frameworks to improve the teaching, learning and developing aspects in higher education without any gender bias in India. There is a considerable difference between male and female in taking their higher education. Even though the importance of learning and grasping a quality education enables the individual to make a right thinker and correct decision maker. The current study aims to focus on the challenges and to point out the opportunities in higher education system.

Keywords: NAAC, quality status, higher education, gender equity, Global competency.

Introduction:

Higher education system plays an important role in country's overall development. A developed nation is inevitably an educated nation. Although there is lot of challenges to higher education system in India, equally there is lot of freedom to overcome these challenges and to make higher education system much better. One of the major challenges in today's higher education system is Gender equity. Recent trends analyze gender equity as a relational process, through the educational system, norms and values are institutionalized within them. To exhibit this relational process gender equity is divided into three connected parts and identifying indicators often use to measure effectiveness of each component. The operation of right is viewed as circular-rights in each of these aspects linking positively to other rights. These rights are indivisible, translate into a program of action to promote both gender equity and gender equality.

The three components are:

1. Rights to education
2. Rights within education
3. Rights through education

The right to education is providing basic education for all individuals who have not completed primary education. This encloses the obligation to avoid inequity at all levels of the educational system, to set minimum standards and to improve the quality of education.

The rights within education refer to provide resources to men and women without discrimination in educational opportunities. The main focus of rights within education are learning content, teaching method and process, subject choice, assessment mode, management of peer relationships and learning outcomes. Rights within education relates to equity of treatment which in turn is reflected in equity of outcomes.

The rights through education become significant when we review evidence of the inequalities in education. The gender equity within education is shaped by the rights in other dimensions.

Review of literature:

Allan, Elizabeth J[1]: He providing a review of the literature related to predominant strategies for advancing gender equity in the context of higher education. The chapter examines strategies through

multiple lenses of feminist theory to help make embedded assumptions more explicit and examine ways in which these assumptions serve to shape and constrain the range of possible solutions to the problem of inequity. The final chapter, "Implications and Recommendations," includes recommendations for further research and a brief discussion of the implications of drawing on multiple lenses to analyze equity.

Naila Kabeer[2]: His study is based on gender equality and women's empowerment. It enlightens the concept of women's empowerment and highlights ways in which the indicators associated with this Goal – on education, employment, and political participation – can contribute to it.

David Dollar and Roberta Gatti[3]: He analyzed the systematic patterns in gender differentials suggest that low investment in women is not an efficient economic choice, and we can show that gender inequality in education is one of the drawbacks for economic growth. Thus, societies that have a preference for not investing in girls pay a price for it in terms of slower growth and reduced income.

Paul Ramsden[4]: His article outlines the development of a student evaluation instrument designed to measure the teaching performance of academic organizational units. The principal conclusion reached is that the Course Experience Questionnaire offers a reliable, verifiable and useful means of determining the perceived teaching quality of academic units in systems of higher education.

Role of institutions on higher education:

Institutions must provide well designed and adoptable academic programs. They should focus on knowledge, competencies, and skills that require for graduates which are easily adapted by students to the rapidly changing society and world. All the educational institutions should enable students to graduate as professionals who can think theoretically and practically. Institutions should inculcate the ability to analyze information with rigor. The mode of teaching should be constructive .The task of institutions is not simply disseminating knowledge to students but also inducting them to implement.

Opportunities in higher education:

Indian higher education system is growing very fast irrespective of various challenges .New age learning tools help to overcome these challenges and bring a paradigm shift in the country's higher education sector.

There are opportunities for India to collaborate at national and international level on areas of higher education. Equity in educational opportunity in higher education is considered essential because higher education is a powerful tool for reducing rational discrimination. The idea of equalizing educational opportunities increases the ability to spread higher education among all classes of people.

Importance of gender equity in higher education:

Education for all is a fundamental human right. Gender discrimination in education has been very evident and underlying problem in many countries, which will hinder the growth of the society. The present report formulates proposals for a gender sensitive approach to education. The main objective is equity in education.

Gender equity in education will strengthen the national economy. Education is considered as a milestone for empowerment because it enables individual to respond to the challenges. Higher education plays a major role in developing nation. The importances of gender equity in higher education are briefly summarized below:

1. Economic development: Education will empower individual to come forward and contribute towards the economic development.

2. Economic empowerment: Economic empowerment and independence will only come through proper education.

3. Dignity and honor: Educated people will be looked upon with dignity and honor.

Study on Improving the System of Higher Education:

There is a need to implement new and life changing approach from primary to higher education level to make Indian educational system globally more effective and competitive. Higher educational institutes need to improve its quality. Government must promote collaboration between Indian higher education institutes and top International institutes and also generates linkage between national research laboratories and research centers of top institutions for better quality and collaborative research. There is a need to focus on the graduate students by providing them such courses in which they can achieve excellence, gain deeper knowledge

of subject so that they will get jobs after recruitment. There should be a multidisciplinary approach in higher education so that student's knowledge may not be restricted.

Challenges in Higher Education in India:

Globalization of education and the extensive use of educational technology have made the issue of quality measurement in education system even more complex. The quality assurance systems have to constantly modify their procedure to assess the learning opportunities.

- **Curriculum design/alignment**: It has been argued that higher education Institutions should able to reach the expectations of the society. To act globally in a competitive environment, the higher education institutions must offer programs to students that will meet the 21st century's higher education demands. To ensure the quality of learning, all institutions can compete equally in this globalization era.
- **Student Employability**: Employability has been defined as a set of skills, knowledge and personal attributes that make an individual more likely to secure and be successful in their chosen occupation. Therefore, HE Institutions should take necessary steps to address this issue.
- **Widening participation:** The demands of Higher Education increased. Widening access and improving participation in higher education are a crucial part of the mission which becomes one of the key challenges needs to address by HE institutions.
- **Quality of learning and teaching:** Maintaining quality has the highest priority to any organization and it is mostly appropriate to the HE institutions. HE Institutions should care about the quality of learning and teaching because it is the only way to become recognized globally. Higher educational institutions need to take extra care to maintain the quality of learning and teaching to ensure best possible student experience. Maintaining excellence in both teaching and learning leads to success.

The multiple dimensions of gender equity in education:

There are four main dimensions of gender equity

- Equity of access
- Equity in the learning process
- Equity of educational outcomes
- Equity of external results

Brief descriptions of each dimension of equity measures are,

- **Equity of access**
  Equity in education means that all people have the info they need regardless of age, education, ethnicity, gender bias. This must overcome obstacles to access in order to ensure fairness.
- **Equity in the learning process:**
  It provides all students with an equal opportunity to learn and prepare themselves for better career or future education irrespective of their socio-economic conditions. In a migrant society, this ambition is very important to ensure that the children of migrants have opportunities equal to the children of local parents.
- **Equity of educational outcomes:**
  The design of educational outcomes and practices play a major role. General Education Outcomes are the goals for learning and development upon which higher education programs are based. They can be defined as the knowledge, skills, attitudes, and values that college students will need to be successful in work, family and community.
- **Equity of external results:**
  The development of assessing education systems through the performance of their students is a major phenomenon in recent years. The assessment of education systems on the basis of student results is a major feature of recent developments in education.

Outcomes of gender equity in higher education:

- Greater opportunities are accessible to Higher Education with equity to all the eligible individuals and in particular to the vulnerable sections.
- Policies and programs for enhancing research and innovations were initiated for encouraging institutions - public or private to engage in stretching the frontiers of knowledge.
- Quality of Higher Education can be promoted by investing in infrastructure and faculty, promoting academic reforms**.**
- Increase student awareness and understanding of the value of guided learning pathways that incorporate high impact practices for workforce preparation
- Collaborate with other stakeholders of higher education for quality evaluation, promotion and implementation.

Conclusion:

Quality, detention and achievement are important elements of an education system which are designed to assure that men and women maximize their full caliber. Gender equity will help the higher education institutions in working towards excellence.

Quality, detention and achievement are important elements of an education system which are designed to assure that men and women maximize their full caliber. As the Gender Equity in Education Framework indicates, addressing issues of access is insufficient to ensure that men and women receive the maximum benefit from their education. Gender equity will help the higher education institutions in working towards excellence.

References:

Allan, Elizabeth J "Women's Status in Higher Education--Equity Matters" (2011) *ASHE Higher Education Report*, v37 n1 p1-163 2011

David Dollar and Roberta Gatti "Gender Inequality, Income, and Growth: Are Good Times Good for Women?" (1999) POLICY RESEARCH REPORT ON GENDER AND DEVELOPMENT Working Paper Series, No. 1

Miriam E. David "Women and Gender Equality in Higher Education" (2015) Educ. Sci. 2015, 5, 10–25; doi:10.3390/educsci5010010

Naila Kabeer "Gender equality and women's empowerment: A critical analysis of the third millennium development goal" (2010) Gender & Development, Volume 13, 2005 – Issue 1: Millennium Development Goals

Ramachandran, Vimala "Gender Issues in Higher Education" - Advocacy Brief. Bangkok: UNESCO Bangkok, 2010.

Werner Z. Hirsch and Luc E. Weber "Challenges Facing Higher Education at the Millennium," (1999) American Council on Education and Oryx Press Series on Higher Education

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

18.

ROLE OF SKILL ENHANCEMENT COURSES IN MAKING INDUSTRY READY GRADUATES: A STUDY

Dr. JVR.Geetanjali[1]
Asst.Professor,
Department of Commerce
Bhavans Vivekananda College

Dr.Uma Jayender[2]
Asst.Professor,
Department of Commerce
Bhavans Vivekananda College
uma92jaya@gmail.com

Dr.K.Sreelatha [3]
Head, Department of Commerce
Bhavans Vivekananda College

ABSTRACT
India is a country with a population of 132.42 billion, having more than 65% of population in the age group of 18-35 years. As per (AISHE) there are 864 Universities, 40,026 Colleges and Stand alone Institutions are serving the needs of higher education. Out of the total students enrolled in higher education, 79.4% are enrolled in Undergraduate level programs of B.A, B.Tech, B.Sc, B.Com and B.B.A courses.
However, National Sample Survey revealed a fact that about 7% of undergraduates are only employable and the remaining are lacking industry sufficient skills. To address the mismatch between demand and supply of skilled workforce and employment opportunities, UGC, the apex body of Higher Education in India, initiated certain curriculum modifications. Consequently, from the year, 2017, Choice Based Credit System was introduced in undergraduate level. These courses may be chosen from a pool of courses designed to provide value-based and/or skill-based knowledge and should contain both theory and lab/hands-on/training/field work. The main purpose of these courses is to provide skills required for the industry and the job market.
The present study attempted to establish the association between the implementation of SEC courses and skill enhancement of the students from the perspective of students and proved that there is a positive response from the students about their willingness to learn SEC as they believe that the course gives them the confidence to fulfill the industry requirements.

Key Words: UGC, CBCS, SEC, students.

1. Introduction

A nation is built by its education system and higher education is the formal education which is acquired after completing the secondary education. In India, various universities, with the help of educational institutions spread across the country provide higher education. India is known for world class education from ancient times with renowned universities such as Benaras Hindu University, Nalanda Viswa Vidyalaya, Calcutta University etc., India's fifty percent of the population consists of youth who are below twenty five years and sixty five percent of the population is below thirty five years of age. However, National Sample Survey revealed a fact that about 7% of undergraduates are only employable and the remaining are lacking industry sufficient skills. The conventional education system lacked the required tenacity and competency of the wards which lead to a mismatch with the industry requirements. Therefore, a transformation of the present education system was inevitable and University Grants Commission aptly initiated the improvement in course- curricula which would result in the skill enhancement of the students in higher education. The education system in India underwent a metamorphosis with the introduction of globally followed learner-centric approach.

Most of the higher education institutions in India were following the evaluation system based on the marks obtained by the students. University Grants Commission wanted a holistic development of the students and as a result introduced the choice based credit system (CBCS). This system is internationally recognised and provides the affability for the students to study the subjects beyond their core subjects. The students are allowed to study the subjects/ courses of their choice and are allowed to move from one institution to the other freely. This choice will kindle the interest of the students as they are free to choose any inter-disciplinary, intra-disciplinary and skill based course. Under the CBCS, the students are permitted to choose from the

prescribed course consisting of core, elective or skill based courses which will be evaluated by grading system rather than the marks system. The uniform grading system is to be followed by all the higher educational institutions in India which not only helps for the easy movement of students across the country but also capacitates the prospective employers to assess the performance of the applicant. The uniformity in grading system is assured by a method used for evaluating the students using Cumulative Grade Point Average (CGPA) and the guidelines for the same has been devised by the UGC.

The choice based credit system covers the following courses:

a) Core Course – Compulsory for all the students in their respective area/ course.
b) Elective Course – Course which can be selected from a pool of courses which is specialized or advanced in order to nurture the proficiency of the students.
c) Discipline Specific Elective Course - Course which is offered for inter- disciplinary elective course by the main discipline.
d) Dissertation or Project – An elective course which supplements with the special knowledge by undertaking a project that is completed with the advise and help of teachers/ faculty members.
e) Generic Elective Course – An elective course selected by a student from other disciplines in order to gain exposure.
f) Ability Enhancement Courses – Consists of two categories namely Ability Enhancement Compulsory Course and Skill Enhancement Course. Former course leads to knowledge enhancement and the latter leads to skill enhancement.

1.1 Need for the Study

Skill Enhancement Course (SEC) is a course which will enable the students to augment their skills and prepare them to face the industry requirements. This course is a value addition given to the students which will go a long way in building up their confidence to suit the job market. SECs are aimed to provide hands-on training, indulge practical knowledge and help to face the real life scenario of the job market for the students which are very essential in this competitive world. This course can be selected from a pool of courses created to facilitate the students with value-based or skill-based knowledge. UGC has made it mandatory for all the disciplines to incorporate SEC papers in their curriculum for under graduate students. The present study spotted the role of SECs which are instrumental in bridging the gap between the industry requirements and the readiness of students to face the job opportunities.

2. Review of Literature

Katelynn A. Dixon (2015), in his thesis titled "Bridging the Gap: An Exploratory Study on Classroom-Workplace Collaborations" has observed that Executive In Residence (EIR) models wherein the industry professionals are brought in to the class rooms for lectures has helped the students in the hospitality and tourism industry to a very large extent. It was found that EIR students learned more than non- EIR students due to challenging course work which enhanced their creativity. Olga Berestneva et al., (2014) have found that the introduction of competence based approach at Russian Universities did not solve the problem of assessing the students competencies required for their placements. Efficient methods and measuring procedures of competence assessment could be done successfully only when mathematical modelling and system analysis is enforced. Rajesh Tiwari (2013), evaluated the role of higher education institutions collaborating with the industry for enhancing the skill of students. The pressure is on the teachers and their teaching quality to produce good quality graduates. It was found that the teachers working in North India were not satisfied with the assessment methodologies and collaboration with the industry for research. Erika Záhorcová et al., (2012), studied the competencies of teachers in developing the skills of the students in Slovakia. It was observed that ICT enabled teaching and development of skills encourages both the teachers and students towards professional growth. Students need to transform along with the education process to meet the industry demand and if they do not understand the intent and objective of skill enhancement, then they will not be suitable for the job market's demand. Deepti Gupta and Navneet Gupta (2012), studied the issues and challenges faced by the higher education in India and found that only 12.4% of students in India opt for higher education and the reason behind this being the inadequate number of universities and educational institutions. The key challenges were the employability of the students and the authors have given the initiatives taken and the recommendations of the government to meet the challenges.

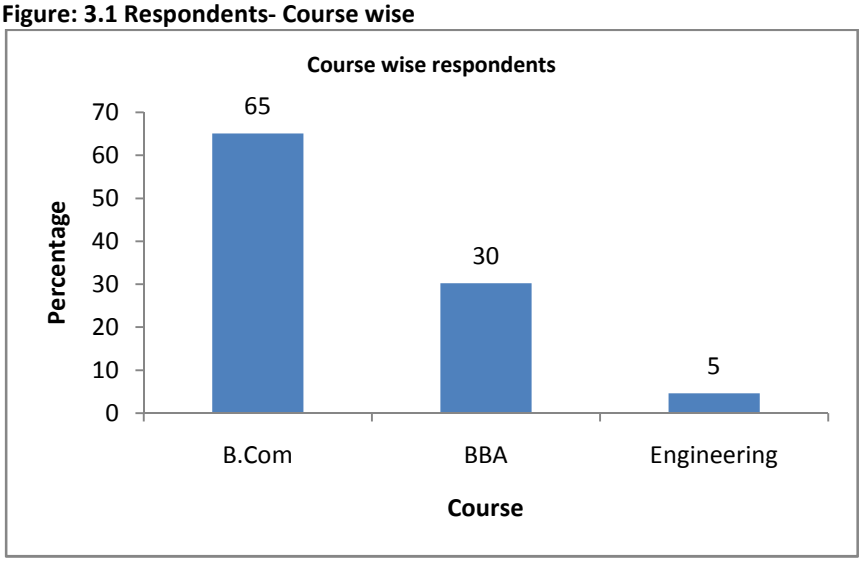
2.1 Objectives of the Study

1. To appraise the role of Skill Enhancement Courses introduced in the present education system in India.
2. To study the opinion of students about the adequacy of Skill Enhancement Courses.

3. Methodology and analysis

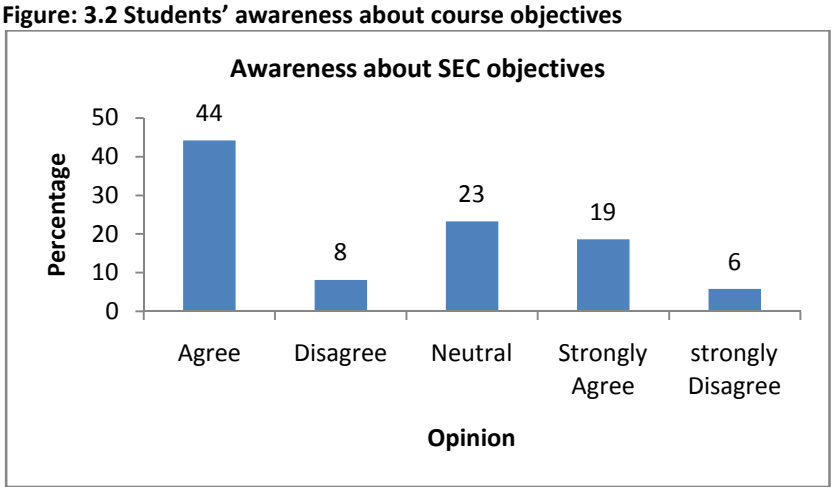
Primary data was collected from students through questionnaires pursuing various courses and the data was analysed with the help of simple percentages and chi-square tests to find the association between variables used in the study.

Figure: 3.1 Respondents- Course wise



The above chart indicates that 65% of the respondents were from B.Com, 30% were from BBA and 4.65% from engineering course.

Figure: 3.2 Students' awareness about course objectives



It is observed that 63% of the respondents agreed and that they were aware about the objectives of the SEC course and the rest were either neutral or disagreed about the awareness.

Chi-Square Test – 1 Association between enthusiasm of teachers to teach and students' learning abilities.

$H_{0 =}$ There is no association between the enthusiasm of teachers to teach and encouragement of students to learn.

$H_{1=}$ There is an association between the enthusiasm of teachers to teach and encouragement of students to learn.

Table: 3.1 Observed Frequency Table

Observed Frequency

Enthusiastic	Agree	Disagree	Neutral	Strongly Agree	strongly Disagree
Agree	24	3	4	11	0
Disagree	2	5	2	0	1
Neutral	9	1	7	0	0
Strongly Agree	2	1	2	10	0
Strongly Disagree	0	1	1	0	0

Table: 3.2 Expected Frequency Table

Expected Frequency

Enthusiastic	Agree	Disagree	Neutral	Strongly Agree	strongly Disagree
Agree	18.07	5.37	7.81	10.26	0.49
Disagree	4.30	1.28	1.86	2.44	0.12
Neutral	7.31	2.17	3.16	4.15	0.20
Strongly Agree	6.45	1.92	2.79	3.66	0.17
Strongly Disagree	0.86	0.26	0.37	0.49	0.02

Table: 3.3 Chi-Square Results

Chi-square value (p-value)	0.0000023
α =	0.05

Since the 'p' value is less than 0.05, the null hypothesis is rejected. It can be concluded that there is an association between the enthusiasm shown by the teachers in instilling skill enhancement abilities and the encouragement of students to learn the course.

Chi-Square Test – 2 Association between SEC course and Skill improvement

H_0 = There is no association between the implementation of SEC course and improvement in the skills of students.

$H_{1=}$ There is an association between the implementation of SEC course and improvement in the skills of students.

Table: 3.4 Observed Frequency Table

Observed Frequency

Course helps in improving skills	**Agree**	**Disagree**	**Neutral**	**Strongly Agree**	**strongly Disagree**
Agree	28	0	9	14	0
Disagree	0	3	2	0	1
Neutral	1	1	7	0	0
Strongly Agree	8	0	1	10	0
Strongly Disagree	1	0	0	0	0

Table:3.5 Expected Frequency Table

Expected Frequency					
Course helps in improving skills	**Agree**	**Disagree**	**Neutral**	**Strongly Agree**	**strongly Disagree**
Agree	22.53	2.37	11.27	14.23	0.59
Disagree	2.65	0.28	1.33	1.67	0.07
Neutral	3.98	0.42	1.99	2.51	0.10
Strongly Agree	8.40	0.88	4.20	5.30	0.22
Strongly Disagree	0.44	0.05	0.22	0.28	0.01

Table: 3.6 Chi-Square Results

Chi-square value (p-value)	0.00
α =	0.05

Since the 'p' value is less than 0.05, the null hypothesis is rejected. It can be concluded that there is an association between the implementation SEC course and the improvement in the skills of students.

Chi-Square Test – 3 Association between students willingness to recommend SEC and their satisfaction for the course.

H_0 = There is no association between the willingness of students to recommend SEC and the satisfaction level for the course implementation

$H_{1=}$ There is an association between the willingness of students to recommend SEC and the satisfaction level for the course implementation

Table: 3.7 Observed Frequency Table

Observed Frequency

	Satisfaction				
Recommended	1	2	3	4	5
Agree	0	2	17	1	18
Disagree	2	2	0	0	3
Neutral	0	8	4	0	5
Strongly Agree	0	0	0	14	9
Strongly Disagree	1	0	0	0	0

Table: 3.8 Expected Frequency Table

Expected Frequency

	Satisfaction				
Recommended	1	2	3	4	5
Agree	1.33	5.30	9.28	6.63	15.47
Disagree	0.24	0.98	1.71	1.22	2.85
Neutral	0.59	2.37	4.15	2.97	6.92
Strongly Agree	0.80	3.21	5.62	4.01	9.36
Strongly Disagree	0.03	0.14	0.24	0.17	0.41

Table: 3.9 Chi-Square Results

Chi-square value (p-value)	0.000
α =	0.05

Since the 'p' value is less than 0.05, the null hypothesis is rejected. It can be concluded that there is an association between willingness of students to recommend SEC and the satisfaction level for the course implementation.

4. Findings of the study

- 65% of the respondents were studying B.Com course.
- 44% of the respondents were aware about the benefits and objectives of SEC.
- There is an association between the enthusiasm shown by the teachers in instilling skill enhancement abilities and the students' encouragement to learn the course.
- There is an association between the implementation SEC course and the improvement in the skills of students.
- There is an association between willingness of students to recommend SEC and the satisfaction level for the course implementation.

5. Conclusion

In the changing world scenario, there is an overpowering need for skilled workers in the industry and the job market. Almost fifty percent of India's population consists of youth in the age group of less than twenty five years and this call for an immediate action to be taken by the government regarding their employability. UGC being the apex body of the education system in India, has revamped the syllabus and mandated the implementation of Skill Enhancement Courses under the CBCS system. This move envisages to provide vocational and hands on training to the students resulting in their employability. The real effect of introducing SEC will be known in the forth coming years on the basis of success of the students in meeting the requirements of the industry.

References

1. Erika Zahorcova, Martina Klierova, Martin Podaril, Roman Hrmo (2012), "The importance of development of students' skills and teachers' competencies". *Procedia- Social and Behavioral Sciences 47 (2012) 1329-1334.*
2. Katelynn A. Dixon (2015), "Bridging the Gap: An Exploratory Study on Classroom-Workplace Collaborations"- *Thesis submitted to Arkansas University.*
3. Olga Berestneva, Olga Marukhina, Gleb Benson, Oksana Zharkova (2015), "Students competence assessment methods". *Procedia- Social and Behavioral Sciences 166 (2015) 296-302.*
4. "Minimum Course Curriculum For Undergraduate Courses Under Choice Based Credit System"- *Guidelines for CBCS published by UGC*.
5. Rajesh Tiwari (2015), "Role of Higher Education Institutions and Industry academia Collaboration for Skill Enhancement". *Journal of Business Management & Social Sciences Research (JBM&SSR). Vol.3, No.11, November, 2014.*
6. https://ac.els-cdn.com/S1877042812025578/1-s2.0-S1877042812025578-main.pdf?_tid=6ad9aefc-c0e5-44ef-bdf2-188a5d611927&acdnat=1522931856_4d1be6208644beea720a22375f877c6f
7. https://pdfs.semanticscholar.org/cddd/120ab801d79a50841b67a5257c5143a95552.pdf
8. http://aishe.nic.in/aishe/viewDocument.action?=239documentId

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

19.

SPECIAL FOCUS ON DIVYANGJAN - A NAAC PERSPECTIVE

G.S.Mini [1], Santi rohit Rao [2], P. Krishnaveni [3]
[1] Assistant Professor, Department of Mathematics, Bhavan's Vivekananda College, Sainikpuri, Secunderabad, India. gs.mini@rediffmail.com
[2,3] Lecturer, Department of Mathematics, Bhavan's Vivekananda College, Sainikpuri Secunderabad, India. parigesanti@gmail.com, polavarapuveni@yahoo.co.in

ABSTRACT

The government of India, as part of it's policy to encourage all categories of people to have access to education ,has been including certain facilities for differently abled people. The country's premier educational body University grants commission has established an autonomous body National Assessment and Accreditation Council (NAAC) to assess and accredit institutions of higher education institutions.

In this paper we discuss the criteria involved in NAAC for assessing and ensuring that the needs of differently abled are catered to and the support the institute can lend to be able to cope with the situation.

Key Words: NAAC, differently abled, criteria, facilities

1. Introduction

The 1995 Persons with Disabilities Act suggests differently-abled persons should have access to education at all levels. In the higher education sector, the University Grants Commission (UGC) encourages universities and colleges in the country to involve in activities to empower differently-abled persons.

NAAC was set up in 1994 under the UGC Act to ensure quality in higher education institutions. It is an autonomous body of the UGC with the agenda of assessment and accreditation of higher education institutions. NAAC has been continuously engaged in the promotion of quality in higher education institutions. In this paper we look at about NAAC and it's concern for facilities for the divangjan (differently abled).

2. NAAC and it's primary concern

The primary aim of NAAC is to monitor quality in higher education.It ensures that higher educational organisatons are assessed on a regular basis and accredited.

NAAC uses a technique which is similar to that followed by other agencies worldwide.NAAC assessment is a combination of both assessment by the organisation and also a peer group .

In this assessment there is a contribution by every stake holder – students , parents, teaching faculty, administrative staff, management…The participation of all stakeholders in the process helps in self improvement.

Quality initiative, Quality sustenance and Quality enhancement are of utmost importance.

3. NAAC – Working Methodology

There are 3 stages in assessment –self study report, student satisfaction survey and peer team report.

The Self study report uses two methods of evaluation. The first one is quantitative metrics, which is considering the facts and figures as data. The next one is qualitative metrics which looks into descriptive analysis. The Self study report will contain both qualitative as well as quantitative metrics. . The Quantitative Metrics consists of 70% and Qualitative Metrics the about 30% .

The information given on Quantitative Metrics will be scrutinized with the help of Data Validation and Verification process which is taken care by NAAC. The Peer team will study the responses to Qualitative Metrics only after the institution clears the Pre-qualifier stage. After the Data Validation and Verification process done by NAAC the Deviation report will be generated. If the deviation is less than 10% the peer team will proceed for Peer Team Visit and that the institution should score at least 30% in Quantitative Metrics. Incase the final score is less than the required percentage, the procedure will have to be repeated along with payment of fees.

Graphical presentation of institutional features would be presented by analysis of quantifiable indicators

The organization report, which is based on qualitative indicators, quantitative indicators and with the opinions of student satisfaction will be generated by a software.

4. A Study of Divyangjan

The Persons with Disabilities Act 1995 indicates that differently-abled persons should have access to education at all levels. . The University Grants Commission, encourages higher education institutions in the country to take part in extra education activities to help differently-abled persons.

TYPES of physical disabilities

The definitions of various disabilities mentioned in PwD Act (1995) are given as follows.

• The term Blindness is defined as, a condition where a candidate has any of the following conditions:

(i) Total absence of sight

(ii) Limitation of the field of vision subtending an angle of 20 degree or worse

(iii) Person with low vision means a person with visual difficulties but who can work with certain helpful devices.

Children with Hearing Impairment :

This is a condition where hearing is much below a particular hearing level.

Children with Orthopaedic Impairment :

- Structural abnormalities i.e presence of a physical abnormality that effects movement for persons
- Delays in motor development i.e (fails to meet developmental milestones at appropriate age, such as head control, rolling over, trunk control, sitting, pull to stand, creeping, etc.)
- Neurological dysfunction (abnormalities in, reflexes, muscle tone.)
- The aim of Higher Education for Persons with special needs are
- To bring about an awareness in higher Education organisations about special needs
- To equip the organisation with facilities to support disabled persons
- To guide the disabled to sustain in higher education.
- To guide in placements for disabled students

5. Guidance and support

A little support and encouragement to improve the knowledge levels, skills and qualification which in turn effects the economic status of differently abled is the aim of government bodies.

To ensure support for differently abled, three percent of funds allocated to UGC has to be spent on differently abled.

5.1 Measures to ensure more support for Divyangjan

- Educational organisations can have disabled friendly campus.
- Deemed university status may be granted only on providing the necessary facilities for differently abled persons.
- Funding agencies can insist that funds will be allotted only if there is a differently abled friendly environment.
- The library must have facilities for differently abled.
- There should be ramps where ever necessary to accommodate wheel chair users. Buildings should have elevator facilities for free movement of differently abled. The ramp has to be skid resistant
- Facilites should be provided to ensure that exams are conducted smoothly.
- In case of a visually impaired person a scribe has to be provided. In case of a person with muscular weakness extra time has to be given to complete the exam.
- The furniture has to be user friendly and the washrooms easily accessible.
- Keeping the need to promote physically disabled in higher education NAAC has introduced quantitative metric regarding physically handicapped in criteria II and qualitative metric in criteria VI

6. Conclusions

NAAC in it's endeavour to improve and sustain quality education has ,looks into the needs of divyanjans and has made the educational organisations also do their social responsibility of encouraging the divyangjans and contribute to the betterment of our country in terms of Educational quality and better future.

References

1. Prasad V S Antony Stella 'Best Practices Benchmarking in Higher Education for Quality Enhancement '
2. www.naac.gov.in
3. Quality Higher education and Sustainable Development .NAAC decennial lectures edited by Dr.Chitra
4. https://en.wikipedia.org/wiki/Quality_Assurance_Agency_for_Higher_ Education
5. http://www.epitomejournals.com Vol. 2, Issue 6, 14th June 2016, ISSN: 2395-6968
6. Kalpana Kannabiran, "Chapter 2: Recognition of Discrimination Based on Disability" in Tools of Justice: Non-discrimination and the Indian Constitution, 86

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

20.

A STUDY ON CONTEMPORARY PRACTICES AS A TOOL FOR QUALITY EDUCATION WITH REFERENCE TO CHOICE BASED CREDIT SYSTEM(CBCS) IN AUTONOMOUS COLLEGES IN HYDERABAD CITY

Mrs. P. Jayasree[1]
Lecturer, Dept. of Management Studies,
Bhavan's Vivekananda College
Phone: 9908075758.
Email: panuganti.jaya@gmail.com

Dr.N.S.Chakravarthy[2]
Head,Department of Management Studies
Bhavan's Vivekananda College
Phone:9866035722.
Email: chakri_nistala@yahoo.co.in

Abstract
Contemporary practices are followed by most of the autonomous colleges as a catalyst for quality education enhancing student learning. Certain practices like Choice based credit systems, student-centered learning, student counselling, good teacher-student relationship, Employable programme, provision of free internet access to students, optimal use of ICT facilities.University grants Commission in its ninth plan has suggested CBCS as a qualitative tool to be followed by autonomous colleges in India.Choice Based Credit System was proved to be effective for student's overall progression. Through CBCS, the students are contented & are able to receive a multi-disciplinary learning experience.Moreover, the faculty members are dealing with students of various discipline get varied experience. The students who have studied under this system have reported superior performance in the various competitive examinations they have appeared. This multi-faceted learning experience of the Choice Based Credit System, has led to the holistic learning of the students facilitating their scope of employability. This paper focuses on Choice based credit system as a tool for providing quality education, & also tries to corelate the adaptability of CBCS to employability skills for the students.Various methodologies adopted by the faculty& also the tools of assessment to be followed by the colleges.

Keywords: Contemporary practices, Choice based credit system, Employability, Quality toolAutonomous colleges.

Introduction:

In the present era ofcompetitive environment,academics play an important role, in higher education, professional approaches and best practices act as tools for quality improvements in the education systems.

Some of the practices to be followed by the colleges can be proper curriculum, a good teacher-student relationship, student-centered learning, student counselling, Mentoring programme, Academic Review and Workshop, Employable programme,providing free internet access to students, optimal use of ICT facilities, maintaininga learner friendly campus ambience and network with alumni.

The present paper focuses on choice-based credit system as one of the practice to be followed as a tool for quality education in autonomous colleges.

The University Grants Commision (UGC) has initiated measures to bring efficiency and excellence in the Higher Education System of India. The basic motive is to expand academic quality in all aspects, right from the curriculum to the learning-teaching process to examination and evaluation systems.Various methods have been followed by different universities, all over the country towards examination, evaluation and grading system. Considering this diversity, the implementation of the choice-based credit system seems to be a good system in assessing the overall performance of a student in a universal way of a single grading system.

Offering programmes to cater to the diverse needs of the students according to their learning ability and pace of learning. Optimization of resource use to achieve the best realization and nurture of talents among the large student community prompted the university to initiate this curricular reform.

The concept of CBCS

CBCS:The concept of Choice Based Credit System (CBCS) programme was introduced by University grants commission(UGC).wherein, the students can choose from the prescribed courses, which are referred as core, elective or minor or soft skill courses and they can learn at their own pace and assessment is graded-based entirely on a credit system. The basic idea is to look into the needs of the students so as to keep up-to-date with development of higher education in India and abroad. CBCS pattern of learning tries to redefine the curriculum with the contemporary practices in

education. CBCS pattern enhances students for an easy mobility to various educational institutions spread across the world along with the facility of transfer of credits earned by students.

Features of CBCS

1.CBCS pattern of learning is uniform for all central and state and other recognised universities.

2.There are three main courses: Core, Elective and Foundation.

3. Non-credit courses are also available which will be assessed as 'Satisfactory' or "Unsatisfactory'. This is not included in the computation of SGPA/CGPA.

4. All the three main courses will be evaluated and accessed to provide for an effective and balanced result.

CBCS has the following basic elements:

1. Semesters: The assessment is done semester wise. A student progression is tracked on the basis of the courses taken rather than time like three years for science, arts, commerce or four years for engineering etc. Every semester will have 15–18 weeks of academic work which accounts for a total of 90 teaching days. Therefore,there is a scope for flexibility in creating the curriculum and assigning credits based on the course content and hours of teaching.

2.Credit system: Every course is assigned a certain credit. If the student passes a particular course, the student earns the credits which are based on that course. If a student passes a single course in a semester, he does not have to repeat that course later. The students can earn credits according to his pace.

3.Credit transfer: Due to some unfavourable reasons, a student cannot cope with the study load or if he/she falls sick, the student has the freedom to study fewer courses and earn fewer credits and he/she can compensate this in the next semester.

4.Comprehensive continuous assessment: There is a continuous evaluation of the student not only by the teachers but also by the student himself.

5. **Grading:** UGC has following grading system

O	(Outstanding)	10
A+	(Excellent)	9
A	(Very Good)	8
B+	(Good)	7
B	(Above Average)	6
C	(Average)	5
P	(Pass)	4
F	(Fail)	0
Ab	(Absent):	0

Credit count:

As per CBCS pattern of education, one credit is given per semester which equals to one teaching hour, which including both lecture (L) or tutorial (T) or two hours of practical work/field work (P) per week. A particular course can have only one component i.e. only L /T/P components. or combination of any two or all the three components.On the whole the total credits for each semester by a student is L+T+P.

The Objectives of choice-based credit system are**:**

1. To promote overall personality development of learners addressing all the educational domains through the curriculum.

2.To inculcate scientific temper, democratic, moral, social and spiritual values in the minds of learners.

3.To orient learners towards self-learning and develop skills in communication.

4.To make quality education accessible to all including the under-privileged with a thrust on holistic development of learners, irrespective of caste and creed.

5.To diversify the programme contents and to establish greater relevance to local socio-economic problems.

6.To introduce greater flexibility in the curriculum by giving more freedom of choice to learners to design their own combination of studies.

7.Developing self-confidence and self-reliance to face various competitive and other professional examinations and thereby to provide greater opportunities for employment.

8.Assisting learners to undertake research in different disciplines including interdisciplinary researches, so that they may support the process of development and modernization of the nation with research work.

Advantages of CBCS

1. The CBCS offers a 'cafeteria' approach in which the students can choose courses of their own choice.

2. The credit system allows a student to study the preferred course as per his interests.

3.They can learn at their own pace.

4. They can opt for additional courses and can achieve more than the required credits.

5. They can also opt for an interdisciplinary approach to learning.

6. Inter college/university migration within the country and outside becomes easy with the transfer of Credits. This means that it will be easier for foreign universities to come and offer courses in India.

7. Can opt for one part of the course in one institute

and the other part in another institute. This will help in making a clear choice between good and bad colleges/ institutes.
8. The students have more scope to enhance their skills and more scope of taking up projects and assignments, vocational training, including entrepreneurship.
9. The system improves the job opportunities of students.
10. The system will help in enabling potential employers assess the performance of students on a scientific scale.
Disadvantages ofCBCS
1.Major drawback of CBCS pattern is exact marks cannot be estimated.
2. Teachers' workload may fluctuate.
3. CBCS pattern implementation at colleges needs proper and good infrastructure .
CBCS in compliance with global grading system of education.
All the major higher education institutions across the world are implementing a system of credits. For example if we take, the European Credit Transfer System (ECTS) in Europe's universities, the 'National Qualifications Framework' in Australia. There is the Pan-Canadian Protocol on the Transferability of University Credits. In the UK, we have the Credit Accumulation and Transfer System (CATS). Even the systems operating in the US, Japan, etc. are based on credit system.

Review of literature:

According to P. S. Aithal, & P.M. Suresh Kumar in their paper on "Analysis of Choice Based Credit System in Higher Education" concluded that the two models of higher education which are going to be relevant in future days are (1) Conventional classroom-based education model and (2) Technology supported online ubiquitous education model. Choice Based Credit system and Competency based Credit system are the two higher education systems proposed, University Grants Commission has come up with the Choice Based Credit System (CBCS) programme in which the students are given a choice to choose from the prescribed courses, which arecore papers, elective papers or minor or soft skill papers and the students would learn at their own pace and the entire assessment will be graded based on a credit system. The basic idea is to look into the needs of the students so as to keep up-to-date with the development of higher education in India and abroad.

According to Mohammad Hasan & Dr. Mohammad Parvez in their paper on "Choice-Based Credit System in India: Pros and Cons". They Inferred that idea of Quality assurance cell has not only been mooted out but also implemented across the national level. At Under-Graduate level, Choice-Based Credit System has become mandatory, which ensures uniformity in education system. But the nature of Indian education system is much diverse and encompasses inherent problems of diversity in implementing the uniform system of evaluation. Present education system of India has got spread across the country in the form of Primary Education, Secondary Education and Tertiary Education. The last one of education sector has much importance in the process of developing nation. Major inventions and innovations have direct bearing on the quality of higher education. So, quality is the major concern of the present higher education which could be judged and assessed only by the universally acclaimed system of evaluation and this could be possible through the CBCS.
According to Ashish Kumar in his article, "Choice based credit *system*(CBCS): A better choice in education *system"*. Found thatUGC has recommended for CBCS to all of the central universities in 2015-2016. The opportunities can't be utilized as both the students and the teachers are not well known. Therefore, it is necessary to know each and every aspect of CBCS. CBCS pattern provides a better facility to the students like freedom, flexibility, advanced learning opportunities, fulfilment of student's academic needs and aspirations, intra and inter institutional transferability, a quality education etc. It is a cafeteria approached system, where standardizations of educational programs are maintained.
Ms. P. V Sumitha, Dr. M. G. Krishnamurthy, Mr. Baretto Royce Winfred in their study: "An Empirical Study To Measure The Perception Of Management Students Towards Choice Based Credit System (Cbcs)" studied the perception of management students towards CBCSwhich is presently designed in management programme of AIMIT, St. Aloysius College Mangalore. highlights the fact that education is not the end of process but an integral part of educational spiral and a well-designed system of evaluation is a powerful educational device. CBCS is essential for Higher Education as this system increases the sincerity among the students as they are preferring to learn the subjects of their choice.
Arvinder Kaur, Manju Sharmain their article, "Academic Curriculum Reform of Indian Higher Education: Choice Based Credit System (CBCS)"

found thatUGC has recently decided to ask all universities to move to choice based credit system. Therefore, it is necessary to know each & every aspect of CBCS. CBCS is internationally acknowledged system; it offers opportunity and avenues to learn core subjects and also additional learning beyond the core subjects for holistic development. CBCS pattern provides the following advantages like better facility to the students like freedom, flexibility, advanced learning opportunities, fulfilment of students' academic need and aspirations, intra and inter institutional transferability & quality education but India is still facing lot of challenges in its implementation which includes lack of proper and good infrastructure for a universal spread of education, lack of proper training & educational programmes. CBCS requires more attention for its proper implementation and effectiveness.

Need of the study:CBCS pattern is followed as one of the contemporary practice in various colleges. This paper tries to analyse the impact of CBCS on student learning and their employability skills.

Objectives of the study:

1.To study the contemporary practices followed in autonomous colleges in Hyderabad city with major focus on Choice based credit system(CBCS).

2. To study CBCS – as a tool for enhanced career prospects. (varied skills)

3. To analyse the student -teacher relationship factors at various autonomous colleges in Hyderabad city.

Research methodology:

Sources of data: Primary data is collected through structured questionnaire.

Statistical tools used: Chi square test for independent attributes is used to analyse the data,Pie charts are also used to represent the data.

1.**Chi -Square test** betweenCBCS pattern and teaching methodologies.

Hypothesis:

Null hypothesis:H_0: There is no association between Choice based credit system(CBCS) and teaching methodologies adopted the teachers in the autonomous colleges

Vs.

Alternate hypothesis:H_1: There is an association between Choice based credit system(CBCS) and teaching methodologies adopted the teachers in the autonomous colleges

Chi-square=	0.107
A	0.05

Conclusion: Significant chi-square value is greater than α, hence we reject H_1andaccept H_0. Therefore, it is observed that there is no association between (CBCS) and teaching methodologies.

2. Chi -Square test between CBCS pattern and provision of varied skills

Null hypothesis:H_0: There is no association between Choice based credit system(CBCS) and provision of varied skills to the students through CBCS pattern in the autonomous colleges.

Vs.

Alternate hypothesis:H_1: There is an association between Choice based credit system(CBCS) and provision of varied skills to the students through CBCS pattern in the autonomous colleges.

chi-square=	0.000058
α=	0.05

Conclusion: Significant chi-square value is lesser than α, Hence we accept H_1 andreject H_0. Therefore, it is observed that there is an association between (CBCS) and provision of varied skills to the students through CBCS pattern in the autonomous colleges.

3. Chi -Square test between CBCS pattern and methods of internal assessment used through CBCS pattern

H_0: There is no association between Choice based credit system(CBCS) and methods of internal assessment used through CBCS pattern in the autonomous colleges.

Vs.

H_1: There is an association between Choice based credit system(CBCS) and methods of internal assessment used through CBCS pattern in the autonomous colleges.

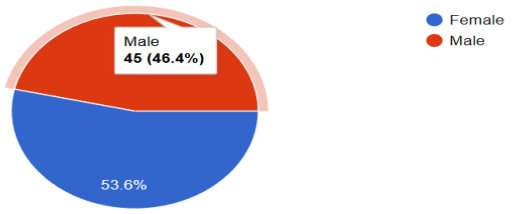
Chi Square	0.037283021
α=	0.05

Conclusion: Significant chi-square value is lesser than α, Hence we accept H_1 andreject H_0. Therefore, it is observed that there is an association between

(CBCS) and methods of internal assessment used through CBCS pattern in the autonomous colleges.

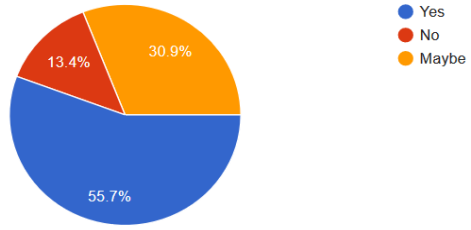
Following are the graphical representation of the respondents

Gender



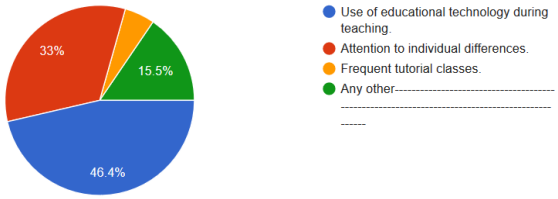
Interpretation: From the above pie chart, it is observed that 53.6% male are studying in autonomous colleges and 46.4% girl students are studying in autonomous colleges.

Satisfaction levels of students with Choice Based Credit System pattern autonomous colleges



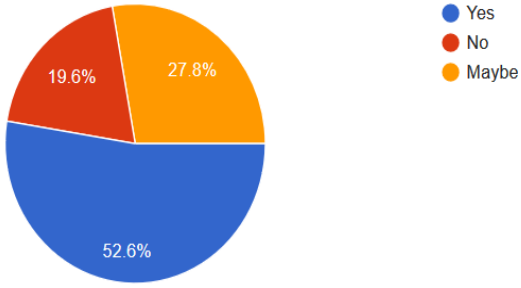
Interpretation: From the above graph, 55.7% students are satisfied with CBCS pattern, &13.4% students are not satisfied and 30.9% are sceptical about the CBCS pattern.

Teaching methods adopted by teachers:



Interpretation: 46.4% of students feel that use of technology is enhancing the teaching,33% of students feel that individual differences of the students should be taken care of,15.5% of students opine that other methodologies, 5.1% students need frequent tutorials.

Choice-based credit system helps students in provision of varied skills



Interpretation:52.6% of students feel that CBCS helps in provision of varied skills,19.6% feel that CBCS pattern doesn't enhance varied skills,27.8% are skeptical.

Limitations: The paper focuses only on CBCS as a qualitative tool &teacher-student relationship in various autonomous colleges in Hyderabad city only**.**

Conclusion: This paper focused on CBCS pattern in autonomous colleges in Hyderabad ,a questionnaire is circulated among the students of various autonomous colleges, data is analysed by conducting Chi-square analysis between CBCS pattern and teaching methodologies adopted by teachers, tools of internal assessment, enhancement of varied skills of students-it is seen that there is no association between CBCS pattern and teaching methodologies adopted by the teachers on student learning in colleges,&CBCS pattern enhancesthe students in getting employability & varied skills. Therefore,CBCS pattern can be seen as one of the contemporary practice in enhancing quality education in various autonomous colleges in Hyderabad city.

References:

1. Ashish Kumar Chaubey, (Volume 3, Issue.6, June 2015),CHOICE BASED CREDIT *SYSTEM* (*CBCS*): A BETTER CHOICE IN EDUCATION *SYSTEM*, International *Journal* Of Creative Research Thoughts.
2. Arvinder Kaur, Manju Sharma, Vol. 3, Issue 1 (Jan. - Mar. 2016) Academic Curriculum Reform of Indian Higher Education: Choice Based Credit System (CBCS), International Journal of Advanced Research in Education & Technology (IJARET) ISSN: 2394-2975 (Online) ISSN: 2394-6814 (Print) www.ijaret.com© IJARET,
3. Ms. P.V Sumitha, Dr. M. G. Krishnamurthy, Mr.Baretto Royce Winfred: PP 56-65, p-ISSN: 2319-7668 e-ISSN: 2278-487X, An Empirical Study To Measure The Perception Of Management Students Towards Choice Based Credit System (CBCS) : A Case Study by IOSR Journal of Business and Management (IOSR-JBM) .
4. Mohammad Hasan & Dr. Mohammad Parvez , Vol.6,No.25,2015 "Choice-Based Credit System in India: Pros and Cons"., Journal of Education and Practice .
5. Sreeramana Aithal and Suresh Kumar, 19 May 2016, Analysis of Choice Based Credit System in Higher Education,
6. UGC Guidelines on Adoption of Choice Based Credit System, University Grants Commission, India. Downloaded from the website: http://collegesat.du.ac.in/ UGC_credit_Guidelines.pdf

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

21.

A contemplative review: Alumnus contribution and engagement with alma mater.

S.Anju[*] and B.Niraimathi
Bhavan's Vivekananda College of Science, Humanities and Commerce.

S.Anju[1]
Assistant professor
Department of Microbiology
Email:*anjunair227@gmail.com*

B.Niraimathi[2]
Vice Principal
Head, Dept.of Physics& Electronics
Email: niraimathib@gmail.com

Abstract

A structured role of alumni is prominently recognized in the development of organizational identification and has been a means to reflect the role of the institution in shaping a quality generation. Involvement of the former students to drive student benefit activities within the institute has been a challenging task. An institution is measured in terms of their alumni interactions based on, qualitative reviews, quantitative contributions and a long lasting environment that prevails for the mutual networking among the student community. Establishment of an ambience for reciprocal benefit of an institute and alumni community needs a creative and strategic outlook.

Several factors are reviewed to maintain a sustainable connect of alumni with the alma mater, that can be a means to breed a consortium for mutual recognition. Alumni engagement in volunteering to recruit potential students, mentoring or connected philanthropically can be categorized as some of the quantitative factors. Experiences in the college as students have been a significant aspect in understanding their future interactions and contributions to their alma mater. Every organization in a process to enlarge their spectrum of institute-alumni relation should have an insight on the relevant areas that affect this purpose. The current study is a review focusing on the various strategies involved in developing the alumni relations. The concept of alumni engagement, the variable attitudes of individuals, demographic status are some of the factors that influence their bond to host institution that can be evaluated.

Key words: Alumni engagement, Alumni relations, Organizational identification,Demographic status, Alma mater.

Introduction

A well established alumni network enables reciprocal growth of an institution as well as the alumnus. A vibrant and engaged alumni group facilitates percolation of the philosophy and ideals of the institution to people in various levels of social order. They are a means to broadcast the progress of the institute, through the achievements that have been resourced by their host institution. The skill and experience of the alumni would be of assistance for the existing students to face their future endeavours.

A well informed alumnus who is abreast with the developments in the institution or university could be the best emissary, who can offer priceless promotion through his professional and personal network. Brilliant alumni would have extraordinary skills and experiences that can be shared to current students who are likely to explore the world after their graduation. Their valuable suggestions and career guidance to the current studentsprovide a competitive edge in today's job market.

Many alumni, who dedicate their success as an institutional attribute, reciprocate by financial donations. Financial assistance is provided in the form of scholarships, funding for advanced facilities, equipment and infrastructure. In light of the monetary benefits and support extended by alumni, it should not be supposed that the beneficiary is solely the institution. In all, there is gain of the alumni in many cooperative interactions which cannot be overlooked. Many of the institutions provide facilities and are resources for the expansion of the alumni enterprise. Alumni are recognized for their indelible contributions that make many, pursue further accomplishments. A large fraction of the members in most of the reputed institutes who are successful entrepreneurs', are among them those who were sponsored by the facilities in the campus. Such incubation centres are a means to establish an everlasting commitment oriented group of alumni.

To expand the interface between alumni and the alma mater, there is a constant necessicity for up-gradation in the approaches. In order to derive the finest stratagem, a review that consolidates the

various studies would be essential to surface the most relevant.

Alumni relations

As per the literature findings, Alumni relations should be primarily satisfied by three components namely, connectedness, engaging and committed. Among them only the individuals who are actively engaged in terms of services and philanthropy can be considered as contributors. Engagement of alumni in the activities is measured in terms of the frequency and the number of members attending the events. An expected turnout indicates the interest and support for the institute. Therein one can determine the strength and commitment of the association towards the alma mater *(Nile Khanfar, 15-22)*. To enhance the performance of alumni association, various researches on the behavioural patterns of the current students in institutions can be considered.

Analyzing the student nature, to predict the relationship, one may have towards alma mater, is one of the means to assume the target group. In this regard, various parameters that lead to development of alumni contributors are investigated.To a great extent these analysis could figure out features that can lead to establishment of impressive relationship between alumni and universities. The studies have streamlined certain characteristic features that can be evaluated. Alumni attitudes, alumni support activities, student involvement in academics and their social commitment, and alumni demographics were some of the attributes considered(Berger, 177).

According to the conceptual model predicted by the researchers, there can be assessments to predict the alumni supportive behaviour for a current student. One of the research studies had a statistical model that correlated the alumni giving behaviour with various factors like attitudes, experiences and demographic studies. The results of the studies were used to identify the alumni donors from the resultant engagement scores.Such an understanding could be instrumental in easily identifying the resources to put up active groups and that can take over the functioning of the alumni associations.

From the study(*Natthawat Rattananmethawong et.al, 150-160*) an alumni cluster was differentiated into segments using logistic regression and k-mean clustering technique. The study derived five segments of alumni, by analyzing the data collected from the survey. The five segments were categorized as “Mid Age Religious”, Elaborate Cohort”, “Activist Mainstreamer”, “Senior League” and “Passionate Learner”. Each of these segments was defined as a cohort of individuals who have some common factors. This study enabled the university to shortlist the target group based on the activity.

According to the study report*(Ray Satterthwaite, 93),*scale of alumni relations has been evaluated using three rubrics namely, operational metrics, transactional metrics and attitudinal metrics.Evaluating operational metrics revealed the success of the measures implemented as part of the alumni relation enhancement within the institute. Transactional metrics indicate the benefits obtained through campaigns implemented. The transformations in attitudes occurring as a result of the programmes organized, that improves the relation of alumni is estimated in attitudinal metrics.

The Princeton University, 2015 self study report of alumni affairs, which was done as part of the strategic planning showed that, devising signature programs helped in developing alumni relations. They had conducted “affinitygroup reunions” where a specific group entitled to a certain common factor like race, region, batch, athletes or school. The report indicated a steady increase in the attendance during their reunions and the meetings organized throughout a span of six years. They enhanced the engagement scores of alumni by focussing on communication, event networking and incessant review on impact generated on every program. They could advance in their alumni engagement with double the numbers. Their evaluation report showed a set of “High impact programs” and “Low impact programs” which helped them work on the strategy that could lead to improvement.

Alumni contributions

Awell established network of alumni helps the institute benefit from a wide range of offerings thatimproves organizational identification. Various activities conducted by alumni associations’ sublime into offerings,which are categorized as contributions which may be quantifiableornonfigurative. However alumni assistance, in the form of shared experiences and they being instrumental in resourcing new avenues are the outcomes of the interactive platforms,among which many are non quantifiable. Altruism among alumni is a very significant

component of reciprocity for any alma mater. Traditionally many universities encourage philanthropy by giving legacy status to the contributors.Not much statistical data has been extracted,regarding honoured alumni in many universities or institutions. However, there are strategies that we can list, made by manyeducational institutions, to materializealumnus altruistic behaviour. Studies have revealed that the fund raising campaigns gain momentum, when recognitions of some kind are granted *(Jonathan Meer, 258)*.

Alumnus of premier institutes is generally found to be more connected than the others. Various observations to understand the frequency and the nature of the alumni donors indicate that, highly ranked institutes have greater benefits of their alumni. A survey in US has shown that about 60% of the alumni in highly ranked institute showed giving nature. Whereas only 19.9% of mediocre graduation schools and 2.0% lowest ranked school's alumni reciprocated. Such an outcome may be a reflection of the placement obtained by the individual. Probably the graduated students from premier institutes' are well off with more monetary benefits, which could support a giving nature.

The alumni giving nature was elaborated based on the outcomes of the study by (*Sung and Yang, 787-811).* Four features were noted that explained alumni behavioural intention – students' communication network, quality of education experiences, evaluation of relations with alma mater, positive image and reputation of university. (*Meer and Rosen,86)*suggested through their study that financial aid that was mostly supported were scholarships, loans and campus jobs. An analysis was done as part of this study to understand whether there is any probability that a student who has received scholarship during his study would develop giving nature. Interestingly financial assistance extended by the alumni, is governed by the area of interest they prefer to donate.To persuade members for donations, one needs to raise campaigns that will coincide with the interest. Literature indicates that awareness of the findings may help the institution devise effective ways to solicit financial assistance.

Conclusion

A dynamic alumni network that can function to propagate organizational identification is the prerequisite for any alumni association. This comprehensive review attempts to determine the reasons that are essential for the alumni to continue maintain the relations with the alma mater. The results give an insight that the features like alumni giving, a relentless communication and organizing signature programs for target groups are the key factors that can make alumni remain connected. Familiarity regarding the interests of the alumni helps in planning strategies that can be responsive and thereby increase attendance for events or reunions. Targeting the prospective donors should be based on the evaluation done with respect to the proportion of their success in personal life and their professional fields. Some of the reasons identified regarding the willingness of an alumnus to contribute are, their personal affinities to specific groups of people and their experiences in the institute. Reputation gained by the alumni through the institute, ensures more prospective donors.Alumni of the premier institutes take pleasure in declaring their association with the alma mater. Therefore it indicates that reputation of a college or university is an essential factor to keep the alumni associated. Institutions must resort to means like social media, to connect and update the information in order to identify successful individuals who have social commitment and can deliver quality services. A blend of features that can raise the institution and alumni through a symbiotic association should be the objective of the advisory board that devise and implement the tasks related to alumni relations and contributions.

References:

1. Berger, Derek J. *The relationship between academic program delivery method, alumni demographics, and graduate alumni engagement: A correlation study*. Ball State University, 2016.
2. Brokers, George W., and Theodore D. Klastorin. "College athletics and alumni giving." *Social Science Quarterly* 62.4 (1981): 744.
3. Clotfelter, Charles T. "Alumni giving to elite private colleges and universities." *Economics of Education review* 22.2 (2003): 109-120.
4. Etzelmueller, Kristen L. "Organizational Identification in Alumni Relations." (2014).
5. Holmes, Jessica. "Prestige, charitable deductions and other determinants of alumni giving: Evidence from a highly selective liberal arts college." *Economics of Education Review*28.1 (2009): 18-28.

6. Khanfar, Nile M., Ziad Swaidan, and Bahaudin G. Mujtaba. "A Study in Relationship Orientation and Prioritization of Alumni Association Preferences with College Seniors in Higher Education." *Contemporary Issues in Education Research* 2.3 (2009): 15-22.
7. Meer, Jonathan, and Harvey S. Rosen. "Altruism and the child cycle of alumni donations." *American Economic Journal: Economic Policy* 1.1 (2009): 258-86.
8. Miller, Vincent A. *Engaging Students in Student Philanthropy Programs to Impact Future Giving: A Multi-case Study of Three Public Research Institutions*. Diss. University of Georgia, 2011.
9. Radcliffe, Shelby. "A study of alumni engagement and its relationship to giving behaviors." (2011).
10. Rattanamethawong, Natthawat, Sukree Sinthupinyo, and Achara Chandrachai. "An innovation model of alumni relationship management: Alumni segmentation analysis." *Kasetsart Journal of Social Sciences* (2017).
11. Specter, Jennifer K. *Enhancing alumni engagement: Tradition-building at the University of Delaware*. University of Delaware, 2012.
12. Weerts, David J., Alberto F. Cabrera, and Thomas Sanford. "Beyond giving: Political advocacy and volunteer behaviors of public university alumni." *Research in Higher Education* 51.4 (2010): 346-365.

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

22.

CRITERIA VII – A QUALITATIVE REPRESENTAION OF THE INSTITUTION

Dr. C. Kameswari
Asst. Professor & Head, Department of Languages
Bhavan's Vivekananda College
Sainikpuri, Secunderabad – 62
Mobile : 9391136608
Email : Kameswari.sahitya@gmail.com

Ms. Manali Bose
Lecturer in French
Bhavan's Vivekananda College
Sainikpuri, Secunderabad – 62
Mobile : 9392416562
Email : manalibose259@gmail.com

Abstract

The NAAC, autonomous organization funded by UGC of Government of India, supervises and controls the quality of Higher education by assessing and accrediting the institutes offering Higher education. The process of accreditation and reaccreditation entails submission of a detailed report of the college framed by 7 criteria.

This paper will deal with the inclusivity of the VII criteria in relation to the qualitative representation of the institution through the other 6 criteria of Self Study Report. The reflection of the progress in curricular structures in teaching - learning, evaluation, infrastructural development can be estimated by the institutional values and the innovative practices followed by the institution. The social awareness exhibited by the best practices and the values inculcated in the students positively reflect upon their personalities and consequently address their employability skills. The institutional values impart a holistic development of the students complementing the curricular contributions and thus aiding their overall development.

Key words : Qualitative, Innovative, Curriculum, Best practices, Employability

Objective:

To establish the importance of the 7th Criterion of the SSR framed following the recent revision in the NAAC guidelines for Reaccreditation and to justify the institution's journey towards Excellence through the information provided by this criterion. The performance of BVC has been cited as an example to support the given objective.

The representation:

KM Munshi's scholastic efforts raised Bhavans which successfully ramified throughout the world imparting Knowledge. BVC is an extension of these ramifications whose ideals are nourished by Swami Vivekananda's spiritual teachings and are reflected by the affluences in its performance consistently.

The recent developments in the academic arena has brought in National Assessment and Accreditation Council, a body framed by UGC to supervise and control the functioning of the colleges offering higher education by certain guidelines. This year the revised guidelines have streamlined the preparation process by making it a technology aided procedure. The revised guidelines demand for the entire profile of the functioning of the institution to be uploaded abiding by the format provided by NAAC. There are 7 criteria which ask for the respective information.

Here we discuss about the 7th criterion and its inclusivity. This criterion deals with the institutional values and the best practices followed by the college and this frames the functioning of the entire college. The optimized curricular structures of all the faculties cater to the contemporary needs and consequently providing for the employability skills. The Board of Studies of the respective departments

review the syllabi and offer their valuable inputs which are duly incorporated and endorsed by the members. The ICT enabled teaching learning and evaluation structure enhances the efficiency of the academic process. Power point presentations and instructions through audio or video texts facilitate the course of comprehension.

The academic structure though well planned finds itself incomplete without the social and cultural components. The scholastic voyage has to yet welcome more crew members.The academic contributions are perfectly complemented by the co-curricular and the extra- curricular activities.

As an effort to evade the darkness leading towards discrimination in the social structure the institution consciously involve in the gender awareness programmes. Thus gender equity is maintained in all aspects. The Indian traditional values imported and executed by this institution imbibe the quality of respect for others and thus gender related issues which generate discomfort within the students' fraternity are not confronted.

Even the international students contribute enthusiastically towards the academic and cultural accomplishments. They brighten the co-curricular frame by adding their cultural components in the programmes held and become an integral part of the students' community.

The best practices discussed in this criterion are composed of the academic and non-academic nature.

The scholastic journey is empowered by the co-curricular activities which are offered by the respective Departmental clubs. These activities nourish the endeavors towards personality development and the communicative abilities, logical thinking capacities are reared.

All the departments of the college have dedicated cl ubs which conduct competitions
throughout the year related to their subject domain. The activities of the clubs help to nurture the leadership skills and managerial abilities of the students. It gives them theopportunity to showcase their subject related
skills and help them learn new techniques.These clubs also serve as a platform to identify and nurture young talents, who, with the aidof various performing arts like music, dance, drama, street plays, debates, elocution help ingenerating and sustaining interest in their subject.These future citizens who sparkle in the green ambience can be even more heard in their deserving nest, the canteen of the college. Its walls bear the signature of their talent in form of beautiful paintings and the cheerful voices add to the colour every day.

The NSS and NCC wings of the college contribute immensely towards the personality development of the students. NCC lays the foundation of disciplined character and NSS sows the seed of social responsibilities which help in the growth of a healthy individual. The social causes which are addressed by the college are Blood donation, Health Camps, Tree plantation programmes and other eco-friendly efforts to rejuvenate the physique and the nature.

A healthy mind in a healthy body contributes to the society well. The physical fitness of the young minds is fostered by the Sports wing of the college. The list of achievements in different sports seems never ending for BVC as it boasts to be the champion in the tournaments at various levels. The morning assembly very often shines with pride while felicitating the winners. Swami Vivekananda's recipe for grooming future individuals is perfectly followed as the healthy body sheltering the enlightened thoughts can bear the flag of humanity forward in the Society.

Celebration of National festivals inculcates harmony and brotherhood which sustains the patriotism in the students and consequently enhance the community welfare activities along with the rise in social responsibility. Students and staff take part in the Independence Day and Republic Day celebrations with great enthusiasm.The festivals are celebrated to encourage the cultural ambience and also to sensitize the studentstowards the renewed traditional values. The celebration of the state festival Bathukamma gains more significance as it glorifies the victory of Virtues over evil.

The achievement of the institution lies in the satisfaction and consequent success of the students. Few feedbacks given by the students are about their academic and co-curricular experiences in the campus. They are self-explanatory and paint the picture of the institution well. To summarize few of

their opinions regarding their choice of the institution, we hereby quote their views:

i) *"The reason is simple Bhavan's got all the resources which an introvert can emerge into an extrovert. It not only deals with the academics also enhances other skills which are required in a business community."*

ii) *"As I started my journey as a Bhavanite I realised that this college is much more than what was written in prospectus. Bhavan's not only provide opportunities to excel in studies but also in various fields like sports, NCC, NSS & extra co-curricular activities. Part of being a Bhavanite is living and growing as a unique individual with in a supportive community. This college helps us to find out our hidden talent."*

Rregardingthe uniqueness of the institution the students opine:

i) *"The faculty are the treasure of knowledge and wisdom hence they all support the change and growth of a student. The rich understanding between students and faculty is the cake".*

ii) *"The uniqueness about Bhavan's is, if you are really dedicated towards any field, Bhavan's helps and make sure that you excel in that particular field by providing many opportunities. Last year when we showed our interest towards research and cheminformatics, Principal sir with the help of our Head of the Department planned our visit to `IICT' for skill enhancement course and we also visited `oil and seed research centre, where we got the chance to interact with scientists and learn many things about our subject".*

iii) *"Bhavan's also has various clubs like Xpressionz, greEnergy, Voice, Vivekananda Institute for Human excellence, Psychife, Soch, Abhyas provide platform to students to explore themselves. The anti-ragging cell of the college makes sure that all the freshers live in a peaceful environment".*

Conclusion :

The road towards Excellence is thus tread by BVC and we believe the destination is not very far. This is the lush green Campus "where the mind is without fear and the head is held high" and "where the clear stream of reason has not lost its way into dreary sand of dead habit", here we incubate a better tomorrow through our knowledge and devotion.

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

23.

A STUDY ON ERGONOMICS AS AN QUALITY INITIATIVE IN ENHANCING THE LEARNING ENVIRONMENT OF EDUCATIONAL INSTITUTIONS.

Mrs. V.Ashwini
Lecturer, Dept. of Management Studies,
Bhavan's Vivekananda College, Sainikpuri, Secunderabad-94.
Phone: 9849441450. Email: varala.ashwini@gmail.com

Abstract

Educational ergonomics is a field of ergonomic science which takes into consideration human factors and basically concerned with the interaction of educational performance and educational design . Learning environment consists of all those physical-sensory elements such as lighting, color, sound, space, furniture, and so on that characterize the place in which a student is expected to learn. This surround should be designed so that learning may proceed with minimum stress and maximum effectiveness. Thus, it should promote sensory comfort and high auditory and visual acuity; and its dimensions and physical layout should accommodate scheduled activities, allow for people's sense of personal space, and promote desirable patterns of social interaction and communication. The basic foundation of educational ergonomics is that student performance to a significant degree is context specific and specialized in relation to specific design factors so that the ergonomic interventions are directed towards design improvements of the learning environment therefore can benefit education.

The present study focuses on the application of learning theory and ergonomic principles to the design of effective learning environments for educational institutions. A questionnaire has been designed to know the students perception on the Impact of Environmental, Physical and cognitive ergonomical factors on the Learning Environment. The basic principles of ergonomics are discussed which are used for educational institutions, including the role of ergonomics in educational institutions, physical environment, lighting, furniture design, sitting ergonomics etc. It focuses on the importance of ergonomics to be taken as a quality initiative in educational environment which enhances the student learning.

Keywords: Ergonomics, Environmental ergonomics, Learning Theory, Cognitive Ergonomics, Learning Environment, student learning

Introduction :

Ergonomics is the study of the design of place of work , equipments used , machine & tools handled , product, environment, and system which takes into consideration human being's capabilities such as physical, physiological, biomechanical, and psychological and optimizes the productivity of work systems and also effectiveness while assuring the safety, health, and well being of the workers (Fernandez and Marley, 1998).

In general, the goal of ergonomics is to fit the task to the individual, not the individual to the task. An ergonomist evaluates the demands of a specific task with reference to the capacity of workers to perform till the task over a certain time period.

Types of Ergonomics

1. **Physical ergonomics** takes into consideration the activities which are concerned with physical activity of an individual .It Includes Working postures, human anatomical, anthropometric, physiological, and biomechanical characteristics,.

2.**Cognitive ergonomics** is concerned with mental processes, such as perceptions, habits, memory, reasoning and motor responses, as they pertain to interactions among humans and the other elements of a total system.

3. **Environmental Ergonomics** – is concerned with human interaction with the environment. The physical environment is characterized by: climate, temperature, pressure, vibration, and light.

4.**Organizational ergonomics** takes into consideration the factors such as optimization of socio-technical systems which includes the policies followed , the organizational structures, , and processes they incorporate in the concerned organisation.

Learning theories are theoretical or conceptual frameworks which describe how knowledge is absorbed, processed, and retained during learning. The Cognitive concept , emotional concept , and environmental influences, previous experience, all play a vital role in understanding, how knowledge

and skills retained are acquired or changed. Ergonomics can be used as one of the learning theories in educational institutions which has an influence on the cognitive and physical factors of the students. Ergonomics can be used as a quality imitative by the educational institutions which can create a positive impact on the student learning capabilities by creating an environment which focuses on the same.

Review of Literature:

According to Aleksandar Zunjic in his research on The Role of Ergonomics in the Improvement of Quality of Education considers the ways in which the ergonomics can contribute to the improvement of the quality of education. They discussed various aspects of application of ergonomics in improving the quality of education and identified several basic in which ergonomics can contribute to improve the quality of education of students. It is concluded that the results of ergonomic research in this area provide a good starting point that allows the creation of appropriate ergonomic designing solutions, aimed at solving the existing problems in this area.

According to Ahmad Ikmal Hakim Ab Ghani in his study on A brief review of ergonomic workstation for disability student presents the review of the ergonomic on workstation for disable student in higher education. Most of disable especially in term of physically disable student has limitation in their study area, which highlighted here as workstation. The main objective of this paper is to discuss the significant role of ergonomic workstation for disable students, which will create an enjoyable learning environment for these students thus enhancing their self-motivation to learn.

According to T. J. Smith in his article The ergonomics of learning: educational design and learning performance studies that the application of ergonomics/human factors (E/HF) principles and practices, and the implementation of ergonomics programmes, have made a significant mark and achieving success in improving the performance and productivity of an employee, competitiveness, and safety and health in most occupational sectors. However, the benefits that the application of E/HF science might bring to promoting student learning have yet to be widely recognized. The study deals with the basic fundamental purpose of education and the concept of student learning and analyses the question of how the ergonomic design of the learning environment influences learning performance.

According to Thomas J. Smith in the article EDUCATIONAL ERGONOMICS: EDUCATIONAL DESIGN AND EDUCATIONAL PERFORMANCE studied that Educational ergonomics that field of human factors/ergonomic science concerned with the interaction of educational performance and educational design. The main principle of educational ergonomics is that student performance to a substantial degree is context specific---specialized in relation to specific design factors---and that ergonomic interventions directed at design improvements therefore can benefit education. This report introduces the education field about ergonomical practices describes the evidence for performance and design interaction at different educational system levels, and identifies a number of research issues and question.

According to Mohamed Mokdad in his article Educational Ergonomics: Applying ergonomics to higher education institutions studied that Ergonomists have been interested mainly in industrial institutions. Other institutions (agricultural as well as service areas) have not been really attractive to Ergonomists and ergonomics. Taking this into consideration there are many rooms for the application of ergonomics especially in higher institutions.. As to the ergonomics of higher education, it seems that ergonomics can help improve at least the following major areas: 1) Programs design: Applying an ergonomic principle that fitting the curriculum to student will lead to a good curriculum. 2) Teaching: The major interests of ergonomics are: design of teaching methods, teaching aids, making use of feedback, improving the relationship between teacher-student, etc,,, 3) Design of evaluation systems that will benefit both the student and the educational system. 4) Development of individuals (teachers, students, administrative workers, etc.) 5) Design of teaching context and tools (social, cultural administrative physical, etc.) 6) Design of educational laws and rules so that education will benefit from them.

According to Benedyk, Rachel Woodcock, Andree Harder in his article The Hexagon-Spindle Model for educational ergonomics proposes an adaption of the concentric rings rings model of ergonomics, taking into consideration of Kao's earlier model, to produce a new model for educational ergonomics known as Hexagon-Spindle Model.In comparision to other Published models of educational ergonomics,

it is holistic, multi-dimensional, task related and transferable across a range of educational settings. It extends to characterise a time base for serial and simultaneous tasks and space shared by multiple learners and highlights areas where learner/system conflicts may arise. This article illustrates analysis tools for the application of the model in evaluation and design.

Need of the Study:

Traditionally Ergonomics has been considered as the work done in a specified workplace. In this present era the scope of ergonomics has broadened and the concept of work is now functional to the satisfactory completion of any task. Learning , being the transformation and extension of the learner's knowledge or skills, can be viewed as work . with its workplace being the educational environment in which learning tasks take place. In accomplishing the process of gaining knowledge that is learning , the learner that is the student interacts with the teachers, other students , equipment, materials, study plans and the educational organization, the effectiveness of these learning interactions is influenced by many factors both internal and external to the organization . To optimize such a multi-factorial process requires the application of an ergonomic approach to be incorporated in to the educational environment to enhance the student learning capabilities

Scope of the Study:

The scope the study is limited to only the ergonomical factors which effects the students learning capabilities. The data for the same has been collected from the students comprising of both UG and PG. Environmental, Physical and Cognitive Ergonomical factors have been taken into consideration for the above study.

Objectives of the study:

1) To study the impact of ergonomical factors on :

a) Students Cognitive factors

b) Students Physical factors

c) Influence of environmental factors in student learning.

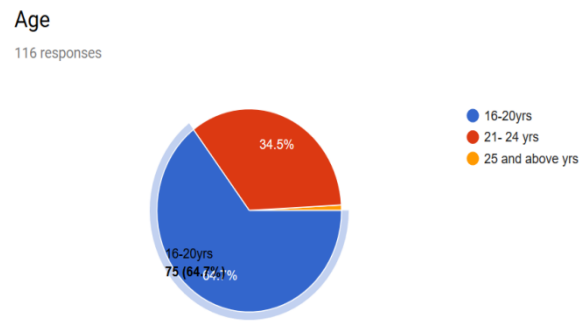
2) To understand the importance of ergonomic practices to be followed in educational institutions.

Research Methodology:

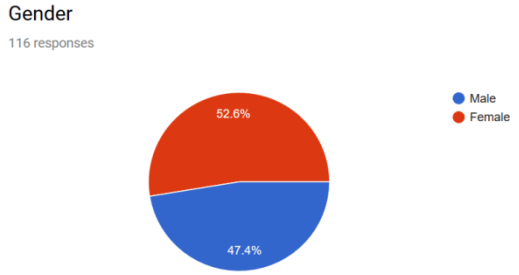
Sources of data:

The Primary data for the above study has been collected through structured questionnaire.

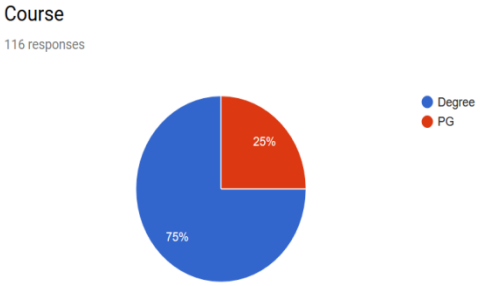
The data has been collected by considering the following demographic factors of the students



Intepretation: 64.7 % of the respondents fall in the age group of 16 to 20 yrs



Intepretation: Female respondents are high with 52.6% compared to the male respondents who are 47.4%



Intepretation: Out of the 116 respondents 75% of the respondents are degree students and 25% belong to Post Graduation level

Statistical tools used: Regression analysis and chi square statistical tools to analyse the data.

The paper analyses the association between the **environmental factors and cognitive factors** using **Chi square test** for independence of attributes through MS Excel.

Null Hypothesis H0 : There is no association between Environmental factors and Cognitive factors

Alternative Hypothesis H1 :There is an association between Environmental factors and Cognitive factors.

Table showing observed values of environmental factors &Cognitive factors.

Observed Values

Environmental factors	1	2	3	4	5
1	0	1	0	1	0
2	0	0	1	2	2
3	0	0	9	13	5
4	1	0	9	24	6
5	0	0	7	19	16

Expected Table

Environmental Factors	1	2	3	4	5
1	0.017	0.017	0.448	1.017	0.500
2	0.043	0.043	1.121	2.543	1.250
3	0.233	0.233	6.052	13.733	6.750
4	0.345	0.345	8.966	20.345	10.000
5	0.362	0.362	9.414	21.362	10.500

Calculated value of chi-square =	0.0000000192
α =	0.05

Conclusion : Significant Chi square value <α Hence, we reject H0 and accept H1

that there is an association between Environmental factors and Cognitive factors therefore we can conclude that both environmental factors and cognitive factors are inter-related.

As per the objectives of the study we try to understand the effect of the Environmental , Physical and cognitive ergonomical factors on student learning by applying regression analysis where in student learning is taken as dependent variable and all the other 3 factors are taken as Independent variables.

We are finding the regression equation of **Environmental factors on student learning** through MS Excel.

1) Hypothesis- H0 : There is no significant effect of environmental factors on student learning.

H1: There is a significant effect of environmental factors on student learning

Regression model of Environmental factors on student learning

Y=2.807+0.288*X1

Significant F(p-value)	0.017
α	0.05

Conclusion : Here F critical<0.05 , Hence we Reject H0

Hence we conclude that there is a significant affect of environmental factors on student learning

2) The regression equation of **Physical factors on student learning**.

Hypothesis

H0 : There is no significant effect of Physical factors on student learning.

H1: There is a significant effect of Physical factors on student learning

Regression model of Physical factors on student learning

Y=2.111+0.514*X1

Significant F(p-value)	0.000000123
α	0.05

Conclusion : Here F critical<0.05 , Hence we Reject H0 and accept H1

Hence we conclude that there is a significant affect of Physical factors on student learning

3) The regression equation of **Cognitive factors on student learning**.

Hypothesis

H0 : There is no significant effect of Cognitive factors on student learning.

H1: There is a significant effect of Cognitive factors on student learning

Regression model of Cognitive factors on student learning

Y=2.203+0.433*X1

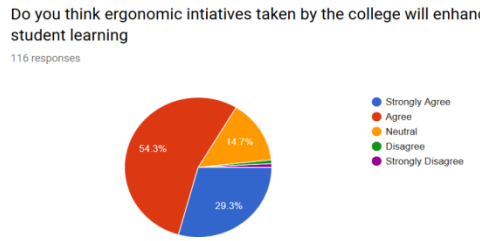
Significant F(p-value)	0.000003290
α	0.05

Conclusion : Here F critical<0.05 , Hence we Reject H0 and accept H1

Hence we conclude that there is a significant effect of Cognitive factors on student learning

The analysis has clearly shown that the ergonomical factors do effect the student learning in educational institutions.

The below even signifies that college should consider ergonomics as an important factor



The above chart clearly specifies that 54.3% agree and 29.3% strongly agree that ergonomic initiatives should be taken by the colleges so that it will enhance the student learning environment.

Findings:

1) The study has shown that students do believe that the environmental factors in the class room effects the student learning.

2) The paper analyses the association between the environmental factors and cognitive factors using Chi square test for independence of attributes. from the test it has been found that the **Chi square value is 0.0000000192 which is less than the α value of 0.05.** So we have rejected the null hypothesis and accepted alternative hypothesis which signifies that there is an association between the environmental factors and cognitive factors. environmental factors should be taken into consideration while designing the classroom environment to enhance the cognitive abilities of the students.

3)In regression analysis we have found out the effect of each ergonomical factor on student learning.

4) The test was carried out to know the effect of environmental factors on student learning in the test it has been found that the **Significant F(p-value) is 0.017 which is less than** the **α value of 0.05** So we have rejected the null hypothesis and accepted alternative hypothesis which signifies that the environmental ergonomic factors do have an effect the student learning.

5) The test was carried out to know the effect of Physical factors on student learning in the test it has been found that the **Significant F(p-value) is 0.000000123 which is less than** the **α value of 0.05** So we have rejected the null hypothesis and accepted alternative hypothesis which signifies that the Physical ergonomic factors do have an effect the student learning.

6) The test was carried out to know the effect of Physical factors on student learning in the test it has been found that the **Significant F(p-value) is 0.000003290 which is less than** the **α value of 0.05** So we have rejected the null hypothesis and accepted alternative hypothesis which signifies that the Cognitive ergonomic factors do have an effect the student learning.

7) As per the study it is clearly evident that there is an impact of ergonomical factors on students learning.

8) From the 116 respondents 82.6 % agree that the colleges have to take ergonomical factors as an quality initiative to improve the students learning environment

Conclusion:

This research paper has been done to understand the impact of the Ergonomical factors on student learning. A questionnaire has been administered to know the students perception regarding the same. Statistical tools such as Chi square and Regression analysis has been done to know the effect of these factors on student learning. The results of the entire study showed that the ergonomical factors incorporated in the educational institutions can enhances the quality of the student learning environment so it is suggested the ergonomics practices can be introduced in all the educational sectors as an quality initiative which has an positive influence on the student learning . Ergonomics is now not only confined to workplace but has broadened its scope to the educational sector as well.

References:

1. Aleksandar Zunjic 86 ▪ VOL. 43, No 1, 2015 FME Transactions The Role of Ergonomics in the Improvement of Quality of Education
2. *Ahmad Ikmal Hakim Ab Ghani, Nur Haizal Mat Yaakob, Rozimah Yusof, Siti Zawiah Md Dawal,* Vol 77, No 27 UTM Jurnal Teknologi EISSN 2180-3722 A BRIEF REVIEW OF ERGONOMIC WORKSTATION FOR DISABILITY STUDENT.
3. Benedyk, Rachel Woodcock, Andree Harder vol. 32, no. 3, pp. 237-248, 200910.3233/WOR-2009-0822.The Hexagon-Spindle Model for educational ergonomics.

4. Daneshmandi, H., Isanezhad, A. and Hematinezhad, M Special Issue, No. 1, pp. 37-44, 2008: The Effects of Classroom Furniture on Back, Neck, Lumbar and Leg Fatigue in Student, Journal of Movement Sciences & Sports,
5. Kahl, J.K.: , Vol. VIII, pp. 1-5, 2005 Room Temperature and Task Effects on Arousal, Comfort and Performance, UW-L Journal of Undergraduate Research.
6. T. J. Smith Journal of Ergonomics Volume 50, 2007 - Pages 1530-1546 | Published online: 28 Sep 2007The ergonomics of learning: educational design and learning performance
7. Occupational Safety and Health Administration (OSHA). 2000. Ergonomics: The Study of Work. https://www.osha.gov/Publications/osha3125.
8. www.mas.bg.ac.rs/_media/istrazivanje/fme/vol43/1/13_azunjic.pdf.
9. https://www.tandfonline.com/doi/full/10.1080/00140130701587608?src=recsys.
10. https://doi.org/10.1080/00140130701587608.
11. https://pdfs.semanticscholar.org/be54/15ebb8a61e3ae30d6f0de7aaa749bab04b01.pdf.
12. https://www.researchgate.net/publication/228627799_Educational_Ergonomics_Applying_ergonomics_to_higher_education_institutions.
13. https://en.wikipedia.org/wiki/Human_factors_and_ergonomics.
14. https://www.researchgate.net/publication/277291688_Educational_ergonomics_educational_design_and_educational_performance_Paper_presented_at_the_International_Society_for_Occupational_Ergonomics_and_Safety
15. http://journals.sagepub.com/doi/abs/10.1177/1071181311551114
16. https://ergoweb.com/ergonomics-for-children-and-educational-environments/
17. https://www.ergonomics.org.uk/Public/Get_Involved/Details/Childrens_Ergonomics.aspx
18. https://curve.coventry.ac.uk/open/items/adf486f2-d14b-48ba-4606-41f6990f566d/1/
19. https://en.wikipedia.org/wiki/Learning_theory_(education)
20. https://explorable.com/cognitive-learning-theory

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

24.

THE CBCS SYSTEM PROMOTES AND REWARDS COLLABORATION BETWEEN UNDERGRADUATE COLLEGES AND RESEARCH INSTITUTIONS

MadhumitaBhattacharjee*, VidyaJonnalagadda, Mary Nygi Kurian, and Prerna Loomba

Department of Chemistry, Bhavan's Vivekananda College of Science, Humanities & Commerce, Sainikpuri, Secunderabad * Email id:madhumita.chem@bhavansvc.org

ABSTRACT

According to the guidelines set by UGC for educational institutions offering graduate, postgraduate, diploma, and certificate programs,our college—a self-financed, private, autonomous institute for undergraduate and postgraduate studies in Arts, Commerce, and Sciences —adopted the CBCS system in 2017. At that point, each Department was charged to introduce 4 Generic Elective courses and 4 Skill-Enhancement CBCS courses for their undergraduate students. This move generated challenges and opportunities in equal measure for the staff of all departments to design and teach topics not included in the regular core syllabus. For the Chemistry Department, introduction of CBCS provided an opportunity for an official collaboration with a premiere research institute in the city (CSIR-IICT). Students of 2nd and 3rd year B.Sc. were provided training on Cheminformatics by scientists at IICT for a period of 70 hours. Here we recount the evolution of this collaboration culminating in an MOU for a Skill-Enhancement Course that provided access to the state-of-art facilities to the students, and exposure to content beyond the expertise of the staff of the college. We also evaluate the student response to this course and discuss our plans for the future.

Key words: credits, autonomous, collaboration, skill, evaluation

INTRODUCTION

One of the biggest changes in recent times in the Indian higher education system is the introduction of CBCS (Choice-Based Credit System) by the UGC (University Grants Commission) in 2015 [1]. This marked an exciting transformation from a completely centralized curriculum to a partially customized system; participating institutions were directed that 70% of the content must be the UGC curriculum, while 30% can be framed by the university.

In addition to the composition of the syllabus, UGC also specified the duration of a semester, the method for calculating the credit rating of a course, and the system of awarding letter grades to describe the performance of a student. This system has ushered in a uniform system of grading students across all participating universities and colleges in India

Challenges in designing CBCS courses

Introduction of the CBCS has created new challenges for the faculty of autonomous undergraduate colleges. Very few faculty, if any, have received formal or informal training in designing curriculum. Until the introduction of CBCS, the faculty were dependent on the UGC or some parent University to prescribe the syllabus, set the examination papers, and provide guidelines to grade the answer scripts.

Moreover, most such colleges do not have robust research programs; the predominant effort of the faculty is directed towards teaching. Often, the faculty have a Master's degree. Even the faculty with Ph.D. degrees may not have sufficient post-doctoral research experience. Hence, most faculty members may have limited expertise in topics that were not covered during their student days. These factors may hinder the framing of curriculum for new courses.

An additional challenge is to differentiate the Generic Electives from the Skill-Enhancement courses (SECs), especially for science subjects, since practicalsare included for all papers in the non-CBCS pattern. Therefore, in framing syllabi for SECs, it may not be easy to justify content that requires investment in expensive new equipment and/or reagents. Thus, it is not a simple matter to design a

course that is related to the core subject but does not have substantial overlap with the core (compulsory) courses and yet is within the intellectual grasping capacity of the student. In other words, one cannot simply bring in courses previously taught at post-graduate level as CBCS courses for undergraduate students.

Opportunities in designing CBCS courses

The challenge of designing courses using in house expertise becomes an opportunity to seek and develop formal agreements with experts in other academic or industrial institutions. Such agreements can widen the scope of the syllabus by providing students a chance to learn content from faculty of other institutions. Until the introduction of CBCS, there may have been few formal official mechanisms to tie up such Memoranda of Understanding (MoUs) with the curriculum of a college. Such MoUs have multiple benefits for the faculty as wells as the students. These are discussed in context of a specific case described below.

METHODS

Here we describe the steps taken in setting up a SEC for undergraduate students (2nd year B.Sc.) in Chemistry via an MoU between our college (self-financed, autonomous institution) and a premiere research institution in the city (CSIR-IICT).

Setting up an SEC on Cheminformatics

During our discussions in 2017 for designing a new SEC in Chemistry, the faulty of Chemistry department was keen on offering a course on Cheminformatics. This idea for this topic was given to us via our contact in a Government research organization (CSIR-IICT; Indian Institute of Chemical Technology) in the city. None of the faculty were proficient in this relatively new subject, but we were confident we could acquire the required expertise via self-study.

However, it soon became apparent to us that we did not have a particular special proprietary software required to successfully deploy the course. In addition, we had underestimated the time and effort it would require for us to feel confident in teaching a new topic after independent self-study. Hence we started exploring alternatives to in house teaching.

At this point we became aware that CSIR-IICT was offering a course on Cheminformatics for interested individuals. We then approached the Principal to send a proposal to the Director of IICT to frame a SEC course to train our students. The Director of IICT accepted our proposal and provided the following framework for a course. The course would span 10 days. Each day, the students would have 4 hours of theory classes, followed by hands-on practical session in the lab and a test.

This intense course structure was then put forward to all undergraduate students of the Chemistry Department. Around 35 students enrolled for the course and paid a course fee to IICT. The course was conducted in February 2018 and student feedback was collected to assess the value and utility of the course.

RESULTS

A total of 24 students (18 were in the 2nd semester and 5 were in 4th semester) provided feedback to specific questions via an online survey form (Google Form). All the students reported that they joined the course out of personal interest to learn a new topic though only 3 had some knowledge of the definition and scope of Cheminformatics.

At the end of the SEC, students were asked to rate the structure and content of the course. All 23 students reported that they like the structure of the course: 16 students rated it 5/5 for content (7 students rated it 4/5). In the comments section, most students said that they appreciated one or more of the following aspects: (a) interaction with experts, (b) lively lectures, (c) practical sessions, and (d) daily tests which helped them assess their own learning. Only one student felt that the course was slightly difficult and intense.

Finally, 21 of the 23 students felt that the course would be helpful in their career. When asked if they would recommend this SEC to other students, 22 out of 23 students said “Yes” and one student said “Maybe”).

DISCUSSION

Based on student responses, we judged the SEC Cheminformatics to be a great success. In addition to the end-of-course feedback, we also received positive daily feedback from several students during the course via text messages. There was definitely a sense of excitement about learning from experts and also a sense of joy in immediately working in the lab to augment what they had learned in the theory classes.

Taking these experiences into account, we have analyzed the value of collaborative courses by two criteria—SWOC (Strength, Weakness, Opportunity, and Challenges) and ABCD (Advantages, Benefits, Constraints, and Disadvantages).

SWOC analysis [2 Aithal, P. S. and Kumar, P. Mpp. 278-284.]

of collaborative courses

Strengths: Collaborative courses provide students an opportunity to learn a modern subject from subject-experts in a state-of-the-art facility and, possibly, a well-endowed campus, if the course is held off-campus from the college. It broadens their horizons and gives them confidence to adjust in professional settings.

Weaknesses: The faculty have little control over the overall curriculum as well as the day-to-day conduct of the course. The faculty themselves do not gain expertise in the topic (unless they attend the course as well). Students have to pay extra for the course (not covered in their tuition fees), which may not be affordable to all. Depending on the structure of the course, students may miss regular classes held in the college for the duration of the course.

Opportunities: Students get a chance to develop contacts with professional scientists. Students who impress the instructors may have an advantage in learning about and seeking positions in summer projects, internships, or even jobs.

Challenges: The biggest challenge in developing collaborative courses is to find a partner institution that is willing to set aside time and resources to train undergraduate students. Convincing the college management to enter into MoUs may also be a challenge in some cases. Finally, if conflicts arise between students and instructors during the course, the faculty may not be in a position to help the students.

ABCD analysis of collaborative courses

Advantages: Collaborative courses promote and reward professional relationships between faculties in various educational institutions. Though the example described above did not involve any activities in the college campus, it is possible to design courses where some portion (such as theory lessons and simple demonstrations) is covered by the college faculty and the remaining is handled by the partner institution. Advantages to students participating in collaborative courses have been discussed in the SWOC analysis.

Benefits: Collaborative courses benefit individual faculty of the college by furthering contact with faculty in other institutions. The department in the college benefits by association with a research institution; the association may lead to other joint projects such as research collaboration. The college also benefits by getting associated with a reputed institution. Finally, the research institute also benefits by meeting targets, if any, for outreach education programs and/or external funding.

Constraints: Some of the constraints in collaborative teaching are (a) identifying topics that are sufficiently novel for the students yet within their capacity to learn, (b) designing a short module of training which fits into the description of an SEC, (c) distance between the college and the research institution, if some content is to be delivered off campus, and (d) additional financial burden on the student. Any one of these factors may turn out to be unsurmountable in certain cases, leading to a failure to reach an agreement.

Disadvantages: There are no serious systemic disadvantages in developing collaborative courses, but some limits may need to be set (by the college or UGC) to discourage the college (and faculty) from simply outsourcing all CBCS courses.

Concluding remarks

The challenge of designing and deploying new courses made mandatory by the UGC under the CBCS system can be converted into an opportunity to build inter-institution collaborations. Not only do such collaborations ease the workload on colleges that are new entrants to the CBCS system, they benefit the students as well as faculty by providing a structured platform for sustained engagement with experts from various other institutions. Eventually, the faculty can themselves offer the course independently within the college campus.

In the case discussed here, some students felt the collaboration with professional scientists was a life-altering event because it changed their mindset from not to pursue a career in science to a determination to explore the possibilities in this sector. This course gave confidence to the staff and students to build more collaborations with other institutes and to explore remote collaboration via routes such as MOOCs (massively online open courses) and video-

conferencing. Based on our experience, we strongly recommend that colleges following the CBCS system develop flexibility regarding their syllabus and explore the possibilities of short, workshop-type modules for SECs in collaboration with research institutions as well as industrial institutions.

References

1.Guidelines for minimum course curriculum for undergraduate-www.ugc.ac.in/../8023719_guidelines- for-CBCS.pdf

2.Aithal, P. S. and Kumar, P. M., Analysis of Choice Based Credit System in Higher Education (June 2, 2016). International Journal of Engineering Research and Modern Education (IJERME) Volume I, Issue I, 2016, pp. 278-284.

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

25.

REVISED ACCREDITATION FRAMEWORK: Challenges and Opportunities in Rural Area

K.Srinivasa Rao [1]
Lecturer in Computer Science
Bhavan's Vivekananda College
Secunderabad
raokakarla@yahoo.co.in

D.Ramakrishna [2]
Lecturer in Computer Science
Bhavan's Vivekananda College
Secunderabad
ramabvc@gmail.com

Abstract

India is the second most populous democracy in the world. A land of remarkable diversity from every angle. The country has 29 constitutionally recognized languages. Hindi and English used by the Central Government. State governments use respective official languages. As per 2001 Census, 53.6% of Indian Population knows Hindi and 12.6% English. In such situation the role of NAAC is very challenging. To bring 789 Universities and 37,205 colleges and Higher Educational Institute under one umbrella. Assessment and Accreditation (A&A) is mandatory for Universities and colleges. Facing First cycle of A&A for new colleges is a Herculean task. Challenges before NAAC to face are facing A&A especially in rural areas , Knowledge of English language is must, availability of technical infrastructure, ICT based teaching- learning facilities, drop-out rate and changing rules of NAAC from time to time. So, the plans and strategies formulated by policy makers in this regard enable the educational institutes in village areas to support their infrastructural facilities, teaching and learning resources and curricular changes to implement the quality sustenance measures. The present paper highlighted the challenges of rural area colleges before visiting NAAC pear team.

Keywords: Assessment and Accreditation, Rural Area, Challenges, ICT (Information and Communication technology), Plans and Strategies, NAAC peer team

Introduction to NAAC:

The National Assessment and Accreditation Council (NAAC) is an organisation that assesses and accredits Higher Education Institutions (HEIs) in India. It is an autonomous body funded by University Grants Commission of Government of India headquartered in Bangalore. NAAC has introduced new guide lines for Assessment and Accreditation (A&A) from July 2017.

The Purpose of Accreditation was that Education plays a vital role in the development of any nation. Therefore, there is a premium on both quantity (increased access) and quality (relevance and excellence of academic programmes offered) of higher education. The NAAC has been set up to facilitate the volunteering institutions to assess their performance vis-a-vis set parameters through introspection and a process that provides space for participation of the institution.

New guidelines affect all criteria of A&A. Fee structure, Grading system, role of peer visit team and role of Library. 100% use of ICT throughout the entire process of A&A from S.S.R. up to grading of the college. In the distribution of weightage across key indicators. In these new guidelines more importance has given to Student Support and Progression. Research Consultancy and Extension has given less attention. But before applying this new guidelines one should have studied the conditions of the colleges from rural area.

Rural Area:

Colleges in rural area feel tremendous tension before Assessment and Accreditation because they don't have specific academic programmes or projects. Colleges pay more attention on completing the syllabus of the students. Teachers are engaged in teaching, providing notes from examination point of view. Beside they don't have modern teaching – learning facilities. Professors have to manage with Blackboard and chalk. Lack of books and Research journals there is very little scope for research. As a result colleges failed to encourage self evaluation, accountability, autonomy and innovations. These colleges failed to manage quality –related research studies as a result these colleges have no collaboration with other popular colleges.

Language Problem:

Our Country has many Languages, and in rural areas local language as more effect, but indeed English language is compulsory. Hindi is our national language yet English is the official of NAAC. Entire

process of A&A is in English-e.g. Rules and Regulations, I.I.Q.A, S.S.R. preparation, student survey and validation unto evolution and assessment certification. This is great and application at urban area where English is popular. But English language is still a major problem in rural area colleges. One English language professor unable to manage entire process of A&A. It's a team work but because of English most of professors unable to give their 100%. If the process of
NAAC is easy and in regional language then it will be more effective.

Infrastructure in Rural Area:

In modern days Urban Area is growing very fast. The best colleges have better infrastructure facilities in Urban Area. The towering buildings, attractive campus with garden and canteen, grand playground with all sports facilities, gym , auditorium, big library, beautiful classrooms with latest teaching and learning resources, computerized labs with internet and Wi-Fi . This type of colleges deserve top grade in A&A. In rural area infrastructure facilities are very poor. Insufficient number of classrooms, number basic facilities, library with syllabus related books, any sporting facilities, and so on. In this condition also most of rural area colleges face NAAC.

Teaching and Learning:

In normal Teaching and learning is based on chalk and blackboard. No proper classrooms for students. In Rural Area we have insufficient number of class rooms, number of benches, number fans and number lights. Professors have to teach with the help of text book and provide notes for students. In rural area students are rarely regular in the colleges because of transport facility. As a result drop-out rate is very high in this college. This conditions need to be improve for better result. In new guidelines 350 points are allotted for teaching and learning. To score better in teaching & learning is a tuff task.

Research, Innovations and Extension:

"The Criterion seeks information on the policies, practices and outcomes of the institution, with reference to research, innovations and extension. It deals with the facilities provided and efforts made by the institution to promote a 'research culture'. The institution has the responsibility to enable faculty to undertake research projects useful to the society. Serving the community, through extension, which is a social responsibility and a core value to be demonstrated by institutions, is also a major aspect of this Criterion."

In rural area there is a very little scope for research. With all the above mention
facilities how one can engage in research. The main aim of the college teacher is to complete his syllabus from the examination point of view. Beside this he has to attend Election Duties, valuation and other college work. So, he has no time to focus on his research. The question is how one can create a "Research Culture."

Conclusion:

The educational scenario in rural and semi-urban areas present a different picture, as the implementation of such measures becomes a herculean task due to non – availability of proper infrastructure , faculty resources, learning resources, research facilities, and training and placement provision, In the absence of special care and attention by policy makers on these issue leads to many problems for the rural educational institutes to cope up with the 3 global and national standards of quality assurance in the sphere of higher education. Total Quality Management in rural areas , therefore , require special focus, specific priorities and substantial planning in order to bring them in mainstream, The need of the hour is to propose different quality improvement strategies, capable of addressing the issues and concerns of rural educational institutes. The present paper is an attempt to highlight the concerns, strategies and approaches, sigma for quality assurance in Higher Education in rural area of our country to make the quality assurance programmes more effective and successful.

References:

1)https://en.wikipedia.org/wiki/National_Assessment_and_Accreditation_Council
2) http://naac.gov.in/why_accreditation.asp
3) Manual for afflilied /constituent colleges, July 2017

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

26.

INNOVATIONS IN PEDAGOGY - HIGHER EDUCATION PROCESS REENGINEERING

Dr. Smita Asthana, Assoc. Prof. in Chemistry, Dean – Academics, IQAC Coordinator,
Dr N V Kavitha, Assoc. Prof. and Head, Department of Commerce
St Ann's College for Women, Hyderabad

ABSTRACT

Today's technology driven society calls for a new pedagogical ideas in Higher Educational Institutions. Paper makes an attempt in rethinking and examining the possibilities of flexible learning enabling choice and responsiveness in the pace, place and mode of learning. Exploring the alternatives in various fields of learning which will have an important inference for pedagogy accepting technologies, expectations of stakeholders, financial implications and delivery models. It dwels on higher education process reengineering that have cross-cutting significance for teaching and learning in the future.

The key steps are envision**,** initiation, diagnosis, Redesign and Reconstruction, implementation, and evaluation. Connecting flexibility to pedagogy with the advantages of enhanced information and communication technology may prepare the learners for future and create learning environments that may contribute to development and mastery of competencies and skills to enhance and enrich the quality of learning.

Key words – Education Process Reengineering, Pedagogies, Innovation, Pace and Place, Information and communication technology

INTRODUCTION

A knowledge economy like India runs on the back of its educated workforce. The relationship between education and more so higher education and sustainable development is complex one. In the fast paced knowledge based societies of today, the institutions of higher learning are the essential components of cultural, socio-economic and environmentally sustainable development of individuals, communities and nations. In education system thereis a need of urgent reform to transform, endeavour to relate it to the life, The most important and urgent reform needed in education is to transform it, to make an effort and to relate it to the life, needs and ambitions of the people and thereby make it the powerful instrument of social, economic and cultural transformation necessary for the realization of the national goals.

Society's future leaders and decision makers are educated in HEI. If these young people are expected to lead all sectors of society (e.g., research, government, medicine, agriculture, forestry, law, business, industry, engineering, education, architecture, and arts) in a world striving toward growth, then we must reorient our education plans to include the many and complex facets of sustainability. An Education process re-engineering is needed in all components of higher education i.e. curriculum development, teaching learning process, assessment and evaluation and research etc.

There should be a careful selection of staff, continuos staff development, dynamic syllabus, teaching methods and techniques, mobility of the students between countries all these components are needed in order to sustain and attain national, regional or international quality. This needs to be supplemented by New Pedagogical Ideas– Connecting Flexibility to Pedagogy in Higher Education Institutions and the need for innovations in teaching pedagogy at HEI's.

I. Need for Innovations in Teaching Learning Process at HEI's

To create the interest among the students, having a perfect internal quality assurance and stakeholder relationship innovation in teaching is required. In today's democratization of knowledge and the role of the teacher is changing from the "sage on the stage to guide on the side". There is a need to have interactive teaching and this changing role of education is inevitable with the introduction of

multimedia technology and the spawning of a technologically-savvy generation of youths. With the help of Information and Communication Technology which has made many innovations in the field of teaching which brought a revolutionary change from the old paradigm of teaching and learning, to *Technology enhanced teaching*. Today the role of student is more important than teachers. The concepts of paperless and pen less classroom are emerging as an alternative to the old teaching learning method.

In order to achieve dramatic improvements in critical contemporary measures of performance, Innovation is the fundamental rethinking and radical redesign of any processes. The rethinking is fundamental because it assumes nothing; it asks 'why' and 'what should be' not 'what is'. Higher Education process reengineering (HEPR), the buzzword in the educational world is the process of relooking at the "core processes" and questioning whether they should be continued, reinvented or discarded.The objective of HEPR initiative is to strengthen higher education institution's ability to develop new strategies, a dynamic goal, an innovative approach to acquire new learners through social inclusion, build lasting relationships with existing learners by developing an attitude for lifelong learning and enhance academic excellence through world-class education.

II. HEPR: A Force to revitalize Higher Educational Institutions

Educational institutions in general and higher educational institutions in particular have been experiencing a number of major developments, quality checks, assessment and accreditations by national and other agencies. In short there is no time to sit back and enjoy the fruits of past work. It's always what next? How best?! HEPR is an innovative approach and the following six steps are proposed .

1. **Envision -** This stage typically involves HEPR project driven by institutional vision, which implies specific objectives such as academic excellence, innovative teaching methodologies, skill enhancement, social inclusion . This step is needed to focus all subsequent actions on HEI vision, mission and objectives with key factor being student's holistic development.
2. **Initiation -**This stage encompasses the identification of a reengineering project team consisting of experienced faculty with the required competencies and other stakeholders like employers, industry representatives and policy makers. The team has to focus on processes, which are mission-critical and most valued in their institutions.
3. **Diagnosis -** This stage is classified as the documentation of the existing process and its sub-processes in terms of process attributes, such as faculty competency, student output, governance, research, and best practices. It involves diagnosis of needs, formulation of objectives, methodologies, specification and organization of content.
4. **Redesign and Reconstruction -** The diagnosis results in a final product of HEPR; its plan for development in the areas of the Curriculum, Teaching Learning and Evaluation, Research,Student Support, which are in line with core areas of NAAC. In the redesign stage, a new idea is given shape through brainstorming and creativity techniques.
5. **Implementation -** Implementation relies heavily on change management techniques to provide reasonable assurance of a smooth migration to new process responsibilities and human resource roles.
6. **Evaluation – SWOC Analysis-**HEPR focuses on user satisfaction, thus the teaching faculty in HEI should conduct user studies to measure their satisfaction towards the services and processes. In order to examine the pros and cons of a process, SWOC (Strength, Weaknesses, Opportunity & Challenges) analysis sessions should be conducted among the team empowered for reengineering.

This last stage of an HEPR methodology requires monitoring of the new process to determine if it has met its goals and often involves linkage to a total quality program. **An innovation** should undergo the above six stages, so as to facilitate critical thinking.

III. Innovation and Classroom Dynamics

Thus the think tank has to think and come up with innovative ideas; is the curriculum offered challenging enough to meet the need of a globally competitive education? Is the lecture method mostly followed acrosscountry with minor value addition, enough? Is teaching learning pedagogy effective, student-centered, interesting and activity oriented? Does our system allow sufficient scope for flexibility, in diversity of curriculum, classroom transaction or outside of class room, duration of program, or to counter, is diversity really needed? Through HEPR the authors have identified flexible pedagogy as an innovative idea

to transform the learning scenario at higher education institutions.

IV. Flexible Pedagogy

Balance between Instructions and pedagogical dynamics along with learner – educator relationship is possible in flexible learning. The learning challenges "the authority of the expert educator and makes space for an enhanced contribution from the learner, by changing the dynamics of learning interactions as well as confronting the power frames that underpin the academic project as a whole" (Ryan &Tilbury, 2013).

Flexible learning gives students choices about when, where, and how they learn. This is often referred to as the pace, place, and mode of learning.

- ***Pace*** "encompasses accelerated and decelerated programmes, part-time learning, recognition of prior learning and associated credit frameworks."
- ***Place*** refers to the physical location of learning, whether it takes place in a classroom, or is completed at home, while commuting, or as part of a work-based experience.
- ***Mode*** refers to providing learning in online with the use of information technology

All the above three aspects can be assisted and promoted through appropriate pedagogical practice, practice that can itself be supported and enhanced through Technology integrated learning. class room experiences can be broadened The use of IT to broaden the classroom experience into virtual learning environments is developing rapidly, bringing possibilities for greater inclusivity and access.

This is important in highlighting how considering flexibility in relation to pedagogy is not automatic but can prompt significant change in core learning dynamics.

Flexible learning has often been seen mainly in terms of the logistics and options for learning delivery but in pedagogical thinking and practice, flexibility can and should be considered as an attribute of both learners and educators – and can also be understood as a characteristic of institutional education strategies.

To explore this relationship between flexibility and pedagogy more deeply involves critical questions about the direction of educational travel in the present HE landscape and attention to flexibility as educational outcome. Rethinking pedagogy in terms of flexibility in this sense means understanding how pedagogical approaches can enable people to develop flexibility of thinking and action, to influence the scenarios they encounter in their life and work beyond HE. The assumption here is that there is an emergent pedagogic need for different kinds of education in HE and that this will require the development of pedagogical models different from those traditionally deployed in the sector.

V. Flexible Pedagogies – Future Outlook

Flexible pedagogies are the future of higher education offering new pathways.It refers to ways of considering approaches to teaching and learning that enable student choices. Technology-enhanced-learning considers the use of Information Communication and Technology (ICT) in its widest sense to support and improve the learning experience. Therefore the natural partners are flexible learning and technology which provide a strong support for assessment of learning. The learner-centered approach adopted in HEIs has helped to devise new and innovative ways to reach diverse learners on one side, and on the other, helped students discover and made them exercise in their distinctive learning styles to provide an educational pathway that leads to overall development.

Conclusion

Higher education globally is experiencing a major paradigm shifts in educational practices of teaching and learning. Rapidly changing technology has created new and constantly evolving job types and competencies requiring new skills, it has facilitated significant progress in accommodating the needs of a broader range of students. The delivery of education is radically revolutionised, providing access to higher education to huge number of students at least cost and flexibility. However, for any technology solution to have a transformative impact on student learning and success, it must have as its foundation the specific goals, needs, and interests of the students themselves. For the existing teaching process if technology is added the entire process will be very flexible, and marginally more efficient and technology also offers the opportunity to make reforms in the educational institutions and practices.

To meet our vision of social inclusion and academic excellence, an upward moving equalisation process is need of the hour. Reorienting existing curriculum and teaching – learning reforms is not only a question of quantity of education, but also one of appropriateness and relevance. ICT will influence teaching and learning of skills, knowledge, values and perspectives,

which will encourage people to pursuer their goals and survive in a sustainable way.

"As human beings, our greatness lies not so much in being able to remake the world – that is the myth of the atomic age - as in being able to remake ourselves."
~ Mahatma Gandhi

References

1. Agnew, P. W., Kellerman, A. S. & Meyer, J. (1996). Multimedia in the Classroom, Boston: Allyn and Bacon.
2. Boud, D. & Feletti, G. (1999). The Challenge of Problem-Based Learning, (2nd Ed.), London: Kogan Page.
3. BPP (2000), Success in your Research and Analysis Project CFA Level 2 Book Edition 2000.
4. Brindley, J., Blaschke, L. M., & Walti, C. (2009). Creating effective collaborative learning groups in an online environment. The International Review of Research in Open and Distance Learning, 10(3)
5. Chirag Patel(2013) Use of Multimedia Technology in Teaching and Learning communication skill": An Analysis. International Journal of Advancements in Research & Technology, Volume 2, Issue 7,116-123
6. Creelman and Reneland-Forsman (2013): Completion Rates – A False Trail to Measuring Course Quality? Let's Call in the HEROEs Instead. European Journal of Open, Distance and E-Learning
7. Dunn, Philip (2001) Interpretation of Accounts. Uk, Student Accountant January 2001
8. Eady, M. J. & Lockyer, L.(2013), 'Tools for learning: technology and teaching strategies', Learning to Teach in the Primary School, Queensland University of Technology, Australia. pp. 71
9. Hofstetter, F. T. (1995). Multimedia Literacy, New York: McGraw-Hill.
10. Hrastinski, S. (2008). Asynchronous and Synchronous E-Learning. Educause quarterly, 31(4), 51-55.
11. Jonassen, D. H., Peck, K. L., and Wilson, B. G. (1999). Learning with Technology: A Constructivist Perspective, New Jersey: Merrill/Prentice Hall.
12. Majumdar, S. (2015). Emerging trends in ICT for education & training. In *General Asia and Pacific Region IVETA*. Resource document. United Nations Education.
13. Michael W. Firmin , Deanna J. Genesi9(2013) History and Implementation of Classroom Technology, Procedia - Social and Behavioral Sciences 93 ,1603 – 1617
14. Ryan and Tilbury (2013): Ryan, A., & Tilbury, D. (2013). Flexible Pedagogies: new pedagogical ideas

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

27.

A STUDY ON SKILL GAPS AND EMPLOYABILITY IN HIGHER EDUCATION

Dr. Kavitha Lal
Assistant Professor
Department of Management Studies,
Bhavan's Vivekananda College of Science, Humanities & Commerce
Sainikpuri, Secunderabad - 500094
Email ID: kavitha.rlal@gmail.com Contact Number:9966651720

ABSTRACT

According to United Nations, youth education is the main key element to meet the goals and attain sustainable development of an economy. Indian labour force requirements are expected to grow around 502.4 millions. The skill set acquired by the students and the skills expected by the industry does not match which leads to a mismatch of skill and employability. According to revised accreditation framework, more emphasis has been given on the skill and employment in higher education. The present study explores the skill gap among students in higher education. The study focuses on the challenges and the various ways to reduce the skill gap to make students more employable.

Key words: Higher Education, Employability, skills, Accreditation, Educational Institutions.

INTRODUCTION:

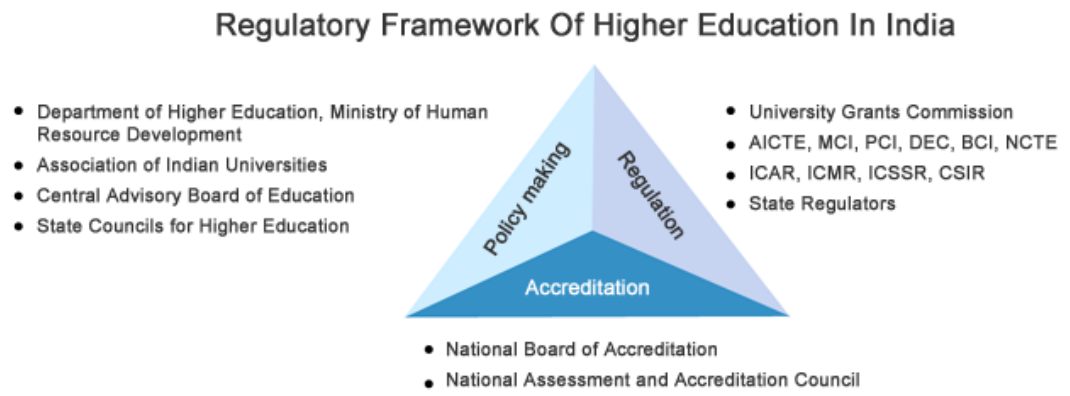
By the year 2025, India is the only country which will have an absolute increase in youth population. Human skill and entrepreneurship are considered as one of the main imperatives for boost in economic growth for the next five years. As per employment survey conducted, skilled work force in India is around 4% which is very marginal compared to other countries. For instance it is 47% in china, 80% in Japan and it is 96% in South Korea. As per research conducted by NASSCOM, Around 3 million students, graduate and post graduate from various government, private universities and institutions in the country. Out of these students, only 25% of them are considered to be employable. Mckinsey report shows that only 25% of engineering graduates are employable. As per the union budget 2018-19, the total outlay for the education sector is set at Rs. 85,010 crore. Spending in the higher education sector is growing at a rate of 18%.

India is the second largest user of e-learning after the US. The sector is currently pegged at US$ 2 billion and is expected to increase and reach US$ 5.7 billion by the year 2020. No, of users of online education in India is expected to increase from 1.6 million in 2016 to 9.6 million by 2021.

Though there has been a significant increase in emergence of more number of educational institutes and more and more number of graduates passing out of these institutions, most of them are unable to get suitable employment. Simultaneously, emergence of various sectors and industries struggles to employ suitable and skilled graduates. This situation leads to skill gap. NASSCOM report foresees shortage of skilled workers in the near future.

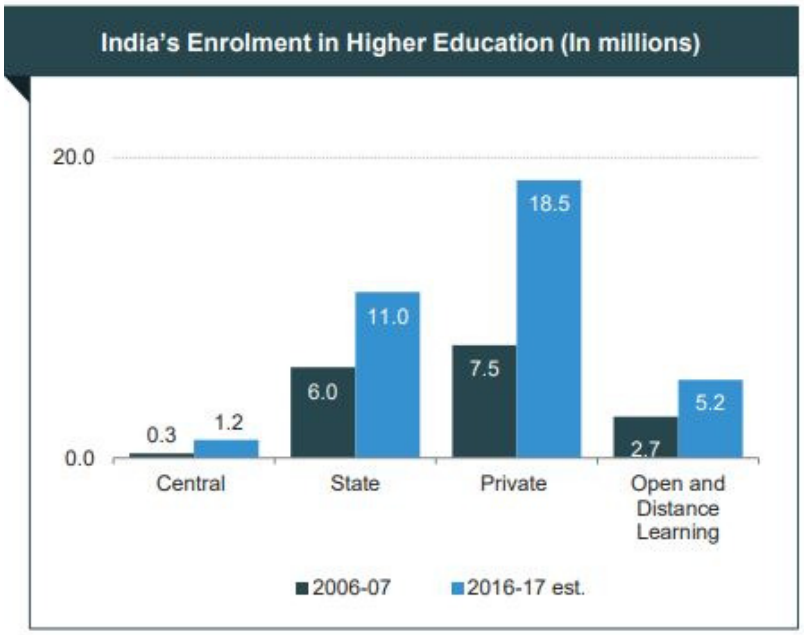
The present paper explores the problem regarding the emerging gaps at the level of tertiary education and the industry. According to revised accreditation framework, more emphasis has been given on the skill and employment in higher education. The article focuses on the growing mismatch between skills the job required and the education. The paper covers the challenges and the recommendations to reduce mismatch of skills and employability.

The entire paper is based on secondary data collected from various sources and published reports. The study is an attempt to give an overview of Indian education system and the relation with employability. The study focuses on the imperative of education system and challenges to be overcome to reduce the gap between education and employability. The study is limited to aspects of enrolment of students in higher education, growth of number of colleges and number of universities over the past years, year wise growth of student's enrolment in higher education, incremental employment growth. The study highlights the challenges and recommendations to reduce the skill gap.



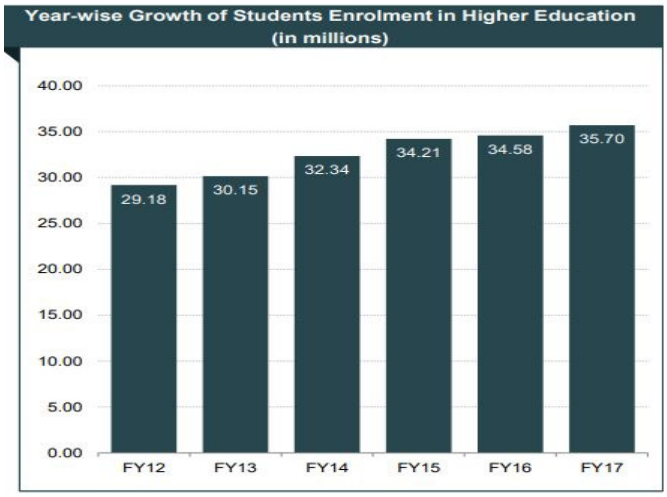
Source: https://www.ibef.org/industry/education-presentation

Higher education sector in India (US$ billions)



(Source: www.ibef.org)

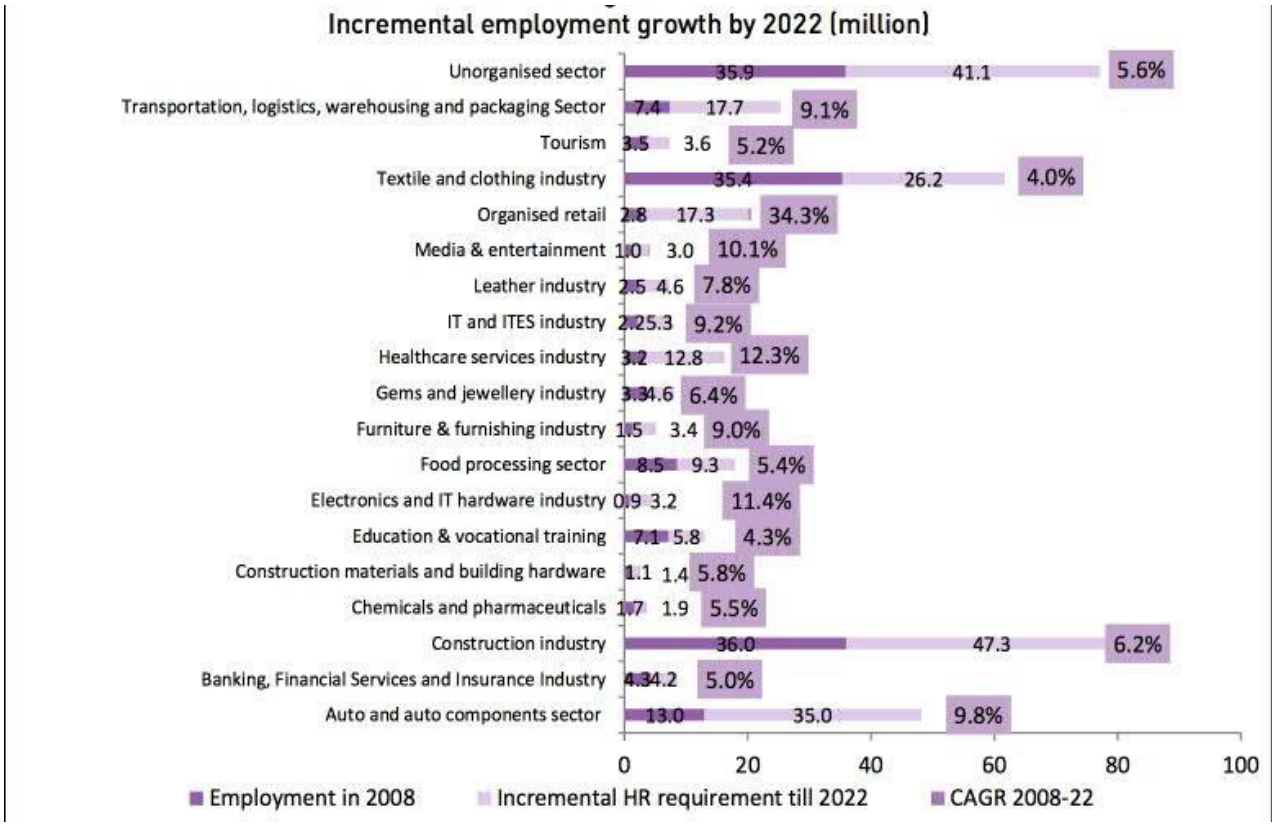
The above table shows about the enrolment in higher education in India. The enrolment has increased in central, state private and distance learning, there is a substantial increase in private institutions from 7.5 million to 18.5 millions. Enrolment since 2006-07 to 2016-17.



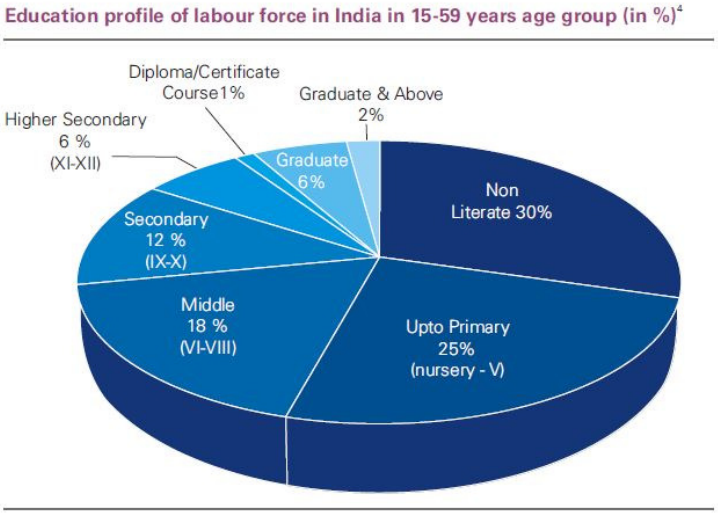
(Source: www.ibef.org)

Growth of student's enrolment in higher education shows year wise increase since 2012 to 2017. The growth percentage increased from 29.18 in 2012 to 35.70 in the year 2017.

In case of labour force in the country is also increasing tremendously. According to NASSCOM report there is an incremental employment growth predictied . The table shows about the employment growth in comparison of 2008 and 2022 and the its CAGR %.

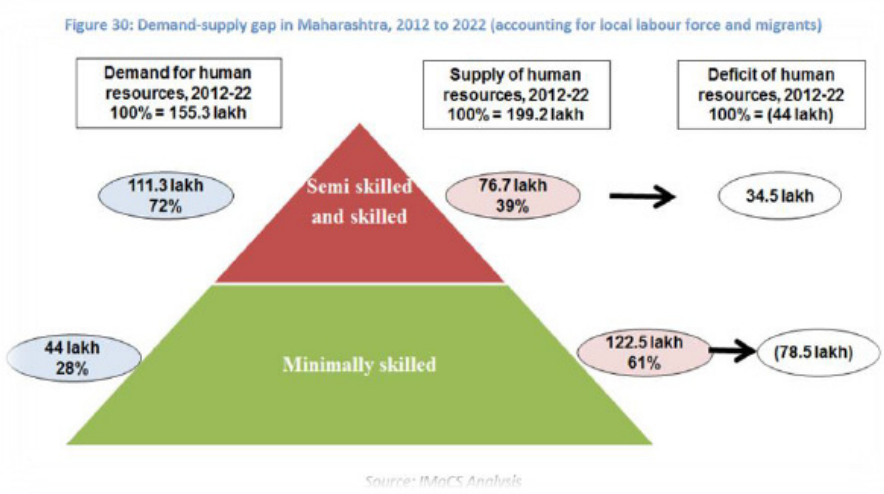


(www.pmi.org.in)



(Source: www.kpmg.com/in)

The above figure shows about the education profile of labour force in India between the age group of 15 to 59 In terms of percentage. Only around 2% of the graduates are part of labour force in the country. Though there is a positive incremental change in number of students enrolling for higher education year by year with that of increasing employment opportunities and the companies' intent to recruit graduates, the percentage of students graduating and the percentage of students employable are not same.



(www.pmi.org.in)

There is no equilibrium between skill required and the availability of skill which leads to mismatch of skill equation. Providing a higher education to a student and providing a suitable job has been a difficult task. Various skill gap studies conducted by NSDC across the country depict such trends. It proves that there is a huge mismatch between youth aspirations and jobs.

Though knowledge economy is increasing, use of technology in various sectors, the emerging gaps in education has been considered as a big constraint. A recent report by FICCI (Federation of Indian Chambers of Commerce and Industry) shows that India's higher education system contributing around 3,50,000 engineers along with about 2.5 million university graduates annually, about 5 million graduates remain unemployed.

CHALLENGES:

- The skill development programs which have been initiated by the government were ignored in the past, due to high capital requirements with a low return on investments.

- There are only a select few people and organisations that are showing interest on entrepreneurial model.
- Issues related to entrepreneurial model such as providing financial aid, infrastructure, seed capital for self employed is Considered as another major Challenge
- identification of the right training partner who can meet the
  Requirements of the industry, reduce the skill gap and can fit into the new skilling ecosystem is a challenge.
- Though universities and colleges are coming up with more number of vocational coursed to match up the needs of the job market, due to higher fee structures, lack of expert faculty many are not getting benefit out of such courses.
- Lack of training infrastructure is also one of the challenges. Though NSDC's funded training partners and various agencies are working with various government departments, to cater the needs, it is not enough.
- In the recent past there have been more international collaborations by NSDC in order to meet India's skill needs; various programmes supported by international partners' limits the support to some of the concerns in the Indian context such as mobilisation and employer support.

RECOMMENDATIONS:

- Stakeholders such as educational institutions, industry, NSDC, SSCs, training providers and the government need to effectively collaborate and create that kind of an ecosystem where students experience hand-on training.
- Curriculum in these training institutions is often outdated and lacks the industry connects. Universities come up with up gradation of syllabus and encouraging the affiliated and accredited institutions' to provide latest curriculum.
- Universities have a responsibility towards students to nurture them towards employability and optimise the link between their teaching Practices and student.
- There is a great dire need to spread awareness about the need for skilling to make students more employable.
- Various bodies and schemes taken up by the government for skill development the outcome has not been satisfactory primarily because of lack of awareness regarding these policies. NGO support to reach remote areas, strengthening NSDC to ensure perfect coordination of employers and students participation is in the right direction.
- An effort needed to make a paradigm shift in the perception towards vocational courses through counselling parents and students.
- Integration of vocational education with the general education in educational institutions by updating curriculum continuously which helps students gain relevance in training programs.

CONCLUSION:

Skilling the youth has certainly a growing focuses of government and other stakeholders. Stake holders such as Education institutions, Industry, Government, and NSDC, SSCs, training providers and partners need to collaborate effectively to reduce mismatch of skill and employability.

REFERENCES:

1. Anitha ganesh, sapna .H "Bridging the skills vs. Employability Gap for a smart India" - Project management national conference India (2017).

2. Büth, Bhakar,Sihag,Posselt, Böhme, Kuldip Singh,Christoph – "7th Conference on Learning Factories, CLF 2017" science direct

3. Dr Nishad Dr.B.Krishna Reddy,"Role of employability skills in management education" ZENITH International Journal of Business Economics & Management Research ISSN 2249- 8826

4.FICCI, KPMG- Global Skills report-"Skilling India – a look back at the progress, challenges and a way forward"- "Role of Employability Skills in Management Education": A Review 2017

5. Jeemol, Unni "Skill Gaps and Employability: Higher Education in India", Journal of Development Policy and Practice1 (1) 18–34 © 2016 SAGE Publications India

6. India skills report 2018

7.Lennart,Vikrant,Nitesh,Gerrit,Stefan,Kuldip Christoph,Herrmann, "Bridging the qualification gap between academia and industry in India" Science direct,Vol.9 (2017)

8. http://www.nsdcindia

9.https://www.ibef.org/download/Education-and-Training-Report-Jan-2018.pdf

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

28.

"GENDER EQUITY" – AN EXCLUSIVE GOAL?

Mrs.G.Naga Laxmi,
M.Com, MBA; Associate Professor, IQAC Member,
Head – Department of Commerce, St.Pious X Degree & PG College for Women
Mail id: commerce.pious@gmail.com
Contact: 9948254680

"I measure the progress of a community by the degree of progress which women have achieved". Dr. B.R. Ambedkar

Gender Equity assessment is a process of looking at the policies, practices and procedures in an organization that specially addresses the issues related to women. It aims to identify developmental dimensions of providing opportunities for women in the organization for their growth and also aspects hindering women's advancements in the organization. Educational institutions are being accredited by the NAAC to assure quality of education and thus establish credibility. Several criteria and indicators have been developed to provide a base for assessment and accreditation. Most of these indicators reflect academic, administrative, infrastructural, financial and human resources. However, it is noted that gender related dimensions are not captured in the assessment process. To make sure that the resources from women are utilized effectively, it is important to include gender components or get sex disaggregated data for assessing the gender balance and make appropriate interventions by the institutions. All educational institutions must take certain initiatives for achieving the objectives of the overall development of the students. NAAC has identified seven major areas for the assessment of institutions. Some examples of gender sensitive indicators have been delineated in this paper for further elaboration and refinement.

Key Words : Gender Equity, NAAC Assessment, Overall Development

INTRODUCTION

UNDERSTANDING GENDER EQUITY IN INDIA

The status of women over a period of time has been quite eventful with struggles fighting for gender equity. Discrimination against women is all pervasive and a long-running phenomenon that characterises Indian society at every level. India's development towards ensuring gender equality, can measured by its position on rankings such as the Gender Development Index has been disappointing, despite fairly rapid rates of economic growth.

In the past decade, while Indian GDP has grown by around 7%, there has been a large decline in female labour force participation from 34% to 27%. The wage gap between the male-female has been stagnant at 50% . Crimes against women show an increasing trend, in particular brutal crimes such as rapes, dowry deaths, and honour killings. These trends are quite disturbing as a natural prediction would be that with growth comes education and prosperity, and hence greater deliberate efforts need to be taken up to promote gender equity in the society as a whole.

AFFIRMATIVE ACTION

Representation of Women in society

There is presently an urgent need for policy initiatives to empower women as gender disparities in India persist even against the backdrop of economic growth. Current trends provide pointers from policy changes that have worked so far. One of the appreciable policy measure adopted in governance that mandated one-third representation for women in positions of leadership is showing promising results.

Evaluations of this affirmative action policy have found that in villages led by women, the interests of female residents are better represented, and women are now more confident in decision making, policy framing and also at reporting crimes that earlier they may have considered too stigmatising to bring to attention.

Female leaders also serve as role models and raise educational and career aspirations for adolescent girls and their parents.

Change in the Traditional Roles

Behavioural studies indicate that traditionally, India is favoured towards male dominated society and the present situation demands and challenges this traditional gender. The negative stereotype should eventually disappear promoting equity.

Legal Literacy among women

Another policy change initiated by the government is aimed at equalising land inheritance rights between sons and daughters and it has been met with a more mixed response. This decision has resulted in ensuring justice and security to daughters by inheriting parental property equally on par with their siblings. It also resulted in an increase in level of educational attainment, and an increase in the age at marriage for daughters. But on the other hand, it increased spousal conflict leading to more domestic violence.

Women Workforce

Improvements in labour market prospects also have the potential to empower women. Women is being preferred for her sincere, committed, dedicated, creative, etc talents. All efforts are being taken to provide consultation and information to young women leading to positive effects on their labour market participation and enrolment in professional training. This also led to an increase in the enrollement of school going girls, increase in the age at the time of marriage and childbearing and a drop in desired number of children. Recent initiatives on education, training and recruiting policies among young women provide economic independence and social autonomy.

GETTING TO EQUITY

For India to retain its position as a global growth leader, greater efforts at local and national levels and by the private sector are needed to bring women to parity with men.

While growing representation of women in the public spheres is vital and can potentially be attained through some form of deliberate action through legal laws and legislations, an attitudinal shift is essential for women to be considered as equal within their homes and in broader society. Educating the children from an early age about the importance of gender equality could be a meaningful start in that right direction.

PURPOSE GENDER SENSITIVE INDICATORS

Higher Educational Institutions are the platforms where the youth can be sensitized towards promoting Gender Equity resulting gradually in a much needed change in the society. Colleges are sincerely taking up various efforts in this direction. Ensuring that activities are planned and executed rightly there needs to be an assessment procedure. Gender Equity assessment is a process of looking at the policies, practices and procedures in an organization that specially addresses the issues related to women. It aims to identify developmental dimensions of providing opportunities for women in the organization for their growth and also aspects hindering women's advancements in the organization. Educational institutions are being accredited by the NAAC to assure quality of education and thus establish credibility. Several criteria and indicators have been developed to provide a base for assessment and accreditation. Most of these indicators reflect academic, administrative, infrastructural, financial and human resources. To make sure that the resources from women are utilized effectively, it is important to include gender components or get sex disaggregated data for assessing the gender balance and make appropriate interventions by the institutions. All educational institutions must take certain initiatives for achieving the objectives of the overall development of the students. In the specific case of women and as envisaged in the National Policy of Education, education is viewed as a tool of social change for correcting the accumulated distortions of the past. Such initiatives may be termed as Gender Positive Initiatives.

NAAC has identified seven major areas for the assessment of institutions.

CRITERIA HEADS IN FOCUS TO GENDER EQUITY

CRITERIA I - "CURRICULAR ASPECTS"

Under the head "Curricular Aspects," NAAC proposes to identify women-related courses/topics introduced in the curriculum in various subjects taught. Related certificate courses and the enrolment profile factors are evaluated.

CRITERIA II - "TEACHING, LEARNING, AND EVALUATION

Under "teaching, learning, and evaluation," the council looks at gender-segregated data on students and faculty in various departments at the undergraduate and postgraduate levels, besides participation of women faculty in seminars, conferences, workshops, faculty development programmes, and representation in various committees. The Percentage of enrolment Male/Female ratios in the total enrolment profile at the point of admission is assessed here.

CRITERIA III – "RESEARCH & EXTENSION"

NAAC will look at the percentage of women faculty actively involved in research, guiding research students, operating projects, and publishing and extension activities. The indicators seek for specific research topics and extension activities related to women. The outcomes of each activity has its own due weightage in the assessment procedures.

CRITERIA IV – "INFRASTRUCTURE & LEARNING RESOURCES"

Infrastructure and learning resources are the other areas under the NAAC focus. Here, the colleges are required to furnish details on the availability of hostel, common room, toilet, and sports facilities for women and the availability of books and journals in the library. The factors and indicators favouring women education ensuring their safety and security, has a positive impact on the NAAC assessment.

CRITERIA V – "STUDENT SUPPORT AND PROGRESSION"

Sex disaggregated data on the number of women students getting scholarships/financial support and the students getting placement are among the NAAC indicators. Here, the availability of women counsellors, sexual harassment cells, and woman doctors, in different colleges is considered. The progression of women in various categories like education, sports, cultural , careers etc are the fators assessed under this criteria.

CRITERIA VI – "ORGANISATION AND MANAGEMENT"

Under the head "organisation and management," the indicators look into the number of women in all selection/promotion committees and the academic, administrative bodies of the institution besides details on maternity leave and creche for children. Women empowerment concept can easily be evaluated by NAAC in evaluating the details under this criteria.

CRITERIA VII – "BEST PRACTICES"

Under the section "healthy practices," NAAC considers the number of gender sensitisation programmes conducted by the college, the number of women-related themes and topics taken up for discussion and debates and the number of leadership camps organised for the personality development of women students. It is a way designed to encourage gender equity programmes.

STRATEGIES THAT MABE ADOPTED BY A TEACHER TO PROMOTE GENDER EQUITY

Education is a vital tool in helping close the Gender bias gap promoting gender equity. For teachers, continued monitoring of gender bias is necessary to minimize its impact on students' opportunities for learning and for achievement. They all need to work to become more aware of any gender-biased tendencies. Strategies to help teachers reflect and change any biased practices, and the need to commit to combating gender bias in educational materials is the need of time.

Listed are some ideas for improving gender equity in the classroom.

- If a teacher finds more male authors, scientists, economists and mathematicians featured in the textbook she/he can use, her/his own research and add more notable women to the mix.
- Be aware of the number of female students in a group. Be incredibly proactive in making sure that all students (regardless of gender, ethnicity, language, or learning ability) are equitably included in discussions and participation. Encourage more women to actively participate in the discussions.
- Call out sexist notions or terminology in texts used in the classroom—for example, a textbook, magazine article, poem, research report, or blog post. One can also highlight any gender stereotypical language used by students in the classroom and use it to invite broader discussion.
- Teachers' can videotape their classes and review their interactions with students. They could also invite a colleague to watch their teaching and note which students are being asked questions, and what type of questions.
- Design a lesson or unit of study based on exploring the students issues of gender, self-image, and equality.

STRATEGIES TO BE ADOPTED TO PROMOTE GENDER EQUITY

- **Talk to women and girls**

The most important factor of not yet achieved gender equality in every realm is that women and girls' voices are too often excluded from global and national decision-making. When programmes and policies are designed without women's needs central to their foundation, such goals are set to fail. If from the inital step women had been adequately consulted in designing plans decision-makers there could be some positive changes. Society would have been able to anticipate that girls only should notl be held responsible for many home chores, caring for younger siblings and fetching water. Having known that a major obstacle for girls' education is that girls are at risk of physical and sexual assaults when they have to walk long distances to get some education adequate provisions should be made to avoid these perils.

- **Stop child marriage and sexual harassment**

Child marriage is a major hurdle to girls' education, particularly in India. If we want girls to be able to complete education we as a society need to say no and stop the prevalence of child marriage. We also have to seriously address sexual harassment of girls. Insecurity is one of the reasons parents give for marrying their daughters. It is also a major barrier to girls' full participation in education.

- **Make education gender sensitive**

There has been much progress in increasing access to education, but progress has been slow in improving the gender sensitivity of the education system, including ensuring textbooks promote positive stereotypes. This is critically important for girls to come out of schools as citizens who can shape a more equal society.

- **Raise aspirations of girls and their parents**

One of the important challenges must be to change the way the girls, families and society imagine what girls can be and can do. We need to encourage positively girls by providing them with concepts, images and role models that expand their dreams. Parents also need to see that there really are opportunities for their daughters, that their only security is not just preparing their daughters to be good wives and mothers.

- **Empower mothers**

There should be sincere moves to increase number of girls going through formal education through providing schools for girls in every district. Through empowering women on the community level we will also enhance girls education. When women particularly mothers are educated and empowered to make choices in their lives, they enable their daughters to follow the same resulting in reshaping the society for better.

- **Give proper value to 'women's work'**

The unpaid work women and girls do provide the foundation for the global economy. This fact needs to be highlighted more in the media, with the private sector and in communities. More research and study on these aspects could be useful in promoting the key role and contributions women and girls make to the economy and the need for proper recognition and compensation. We also need a concerted campaign for equal pay for equal work worldwide. Legislation, economic incentives, and pledges like the UN's Women's Empowerment Principles should be adapted, promoted as legal literacy drives and replicated everywhere.

- **Get women into power**

A right way to overcome many systemic hurdles to a woman's success has been increased participation by women in local, regional and national legislation as empowered change agents. A woman's voice need to be heard and her ability to become a leader in her community being fundamental to empowering women need to be properly nouchered.

- **Encourage women into non-traditional vocations**

Women with proper support and encouragement can achieve any heights in spheres of work hence she needs to be motivated to come out of her traditionally defined roles and social taboos . Prepare herself for this long-lasting change in their lives will definitely result in a better society. Skilling women in professions such as motorcycle fixing, driving, hospitality, mobile-phone fixing etc is the need of time.

- **Stop the violence**

  Gender inequality allows for violence against women to continue unabated. The scenario is quite shocking with statistics indicating that globally, one in three women will experience violence in her lifetime, with most violence against women is done by a current or former intimate partner. A lot need to be known about the prevalence of violence against women and effective prevention and response strategies need to be implemented.

The NAAC has developed Gender sensitive Quality Indicators and expects that all HEIs may try to use these indicators not only for assessment purpose but also as an integral part of the overall functioning. The NAA C, as desired by the MHRD has already initiated the process to integrate the above guidelines with self-study report formats. Since this process will take its own course, as an interim step, all the NAAC aspiring institutions have to take into consideration the compliance of these guidelines while arriving at the judgement on institutional quality during the process of Accreditation as well as Reaccreditation.

References:

www.thehindu.com
naac.gov.in/docs
https://www.thechronicle.com.au/topic/gender-equality/
https://globalnews.ca/tag/gender-equality
https://www.entrepreneur.com/article/298563

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

29.

Quality movement in Indian Higher Education

Mrs.V.Achutamba
Lecturer
Department of Management Studies
Bhavan's Vivekananda College of Science, Humanities and Commerce
Sainikpuri, Secunderabad
Email Address: achutambavarri@yahoo.in
Phone Number: 7702764768

Abstract:

Higher education plays a very important role in creating effective and efficient society with bundle of qualitative knowledge. In order to improve the quality in higher educational Institutions UGC with its statutory powers initiated mechanism to monitor the quality in the colleges and universities and established NAAC to maintain and monitor quality. Along with the NAAC other individual statutory bodies came into the picture to ensure the quality in colleges. In order to measure the quality application of quality dimensions in service sector should be introduced as education will come under the purview of service. Various dimensions have identified in quality of higher education. Systems approach has been discussed in the paper to identify the internal and external factors which transforms the HEI's qualitatively. To ensure quality various quality techniques like pareto analysis, fishbone diagram has discussed in this paper

Key Words: HEI's (higher Educational Institutions, systems Approach, quality dimension, pareto analysis and fishbone diagram**.**

Introduction:

The main goal of this paper is to develop a thorough understanding about the role of teachers in developing the methodologies in increasing the quality in higher education.

The UGC with its statutory powers is expected to maintain quality in higher educational institutions. Sec 12 of the UGC act of 1956 requires UGC to be responsible for the determination and maintenance of standards of teaching, examinations and research in institutions.

Milestones of NAAC :

The milestones in the emergence of NAAC can be identified as follows (Stella, 2000):

1986: UGC constituted a 15-member committee on Accreditation and Assessment Council under the chairmanship of Dr. Vasant Gowarikar.

1987-1990: Nine regional seminars and a national seminar organized to debate Gowarikar Committee report.

1990: Dr Sukumaran Nair's has submitted his project report to UGC to have an accreditation agency which is accountable to UGC

1992: The revised New Education Policy reiterated all round improvement of educational institutions.

1994: There was a committee led by Prof. G. Ram Reddy who has appointed to finalize the memorandum of association and rules and regulation of the accreditation board (July 1994).

1994: National Assessment and Accreditation Council established at Bangalore (September 1994).

Objectives of NAAC

The main objectives of NAAC as envisaged in the Memorandum of Association (MoA) are to:

Grade institutions of higher education and their programmes;

Stimulate the academic environment and quality of teaching and research in these institutions;

Help institutions realize their academic objectives;

Promote necessary changes, innovations and reforms in all aspects of the institutions

working for the above purpose; and
Encourage innovations, self-evaluation and accountability in higher education.

There are other few statutory bodies like NAAC (which checks the quality in higher education in colleges and universities) in India to assure quality in higher education they are

All India Council for Technical Education (AICTE)
National Council for Teacher Education (NCTE)
Medical Council of India (MCI)
Indian Nursing Council (INC)
Bar Council of India (BCI)
Rehabilitation Council of India (RCI)
Distance Education Council (DEC)
Indian Council for Agricultural Research (ICAR)

AICTE :

The AICTE established the National Board of Accreditation (NBA) in 1994 to accredit programmes offered by technical institutions. The programmes which are offered in the universities and colleges are accredited by NBA which is a voluntary process like NAAC . some professional statutory bodies conduct review to recognize or derecognize based on the quality audit Because of the quality issues it is on the top agenda of Indian higher education.

Dimensions of Quality in Higher Education

Service Quality Dimensions in higher Education

- *Reliability*: the service is provided as how it was assured.
- *Responsiveness*: The service is provided according to the requirements of the customers
- *Competence*. People who are providing services should have complete subject competencies in a very effective way.
- *Access : feasibility to use the services easily and quickly*
- *Courtesy: employees and the service providers should be very polite and kind in nature and responsive too.*
- *Communication*: passing the information to the customers or making them update about the data of the service which is provided
- *Credibility*: The Educational institutions who are providing service should be trustworthy, believable
- *Security*. Freedom from danger risks or doubt.
- *Understanding the customer*. The effort of the service provider to understand the needs and wants of the individual customers.
- *Tangibles*: documents or physical objects should be provided by the service provider.

The way quality is Assessed

All the educational institutions should have quality assurance even though the top management sets the policies and priorities. Therefore this quality assurance should be continous and ongoing process it should not be considered as a onetime activity for accreditation alone.

Across the world quality assurance is done in the following ways:

- Evaluation and analysis done by self
- A panel of experts will be doing peer review which includes external panel members and one or more site visits;
- Statically data analysis and/or use of performance indicators or the best practices benchmarking;
- Surveys of students, graduates, employers, professional bodies;
- Testing the knowledge, skills and competencies of students (Harman, 1998).

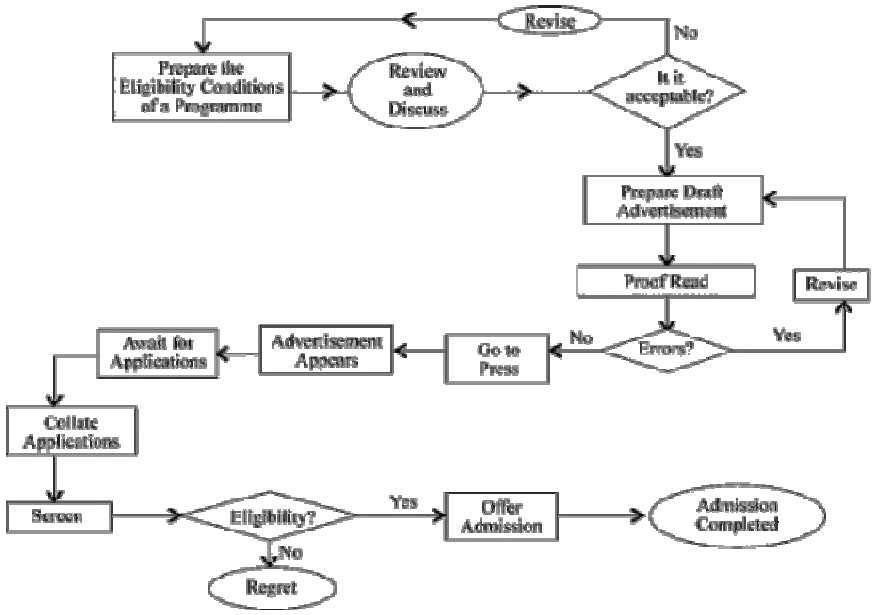
At NAAC, a four-stage process of external quality monitoring/assessment is undertaken covering:

- Identifying pre-determined criteria for assessment;
- Preparation and submission of the self-study report by the unit of assessment;
- On-site visit of the peer team for validation of the report and recommendation of the assessment outcome to NAAC; and
- Final decision by the Executive Committee of NAAC (NAAC, 2005).

Tools of Quality Management

Tools of total quality management that can also be applied in educational institutions to improve the quality

1) Process Flow Chart



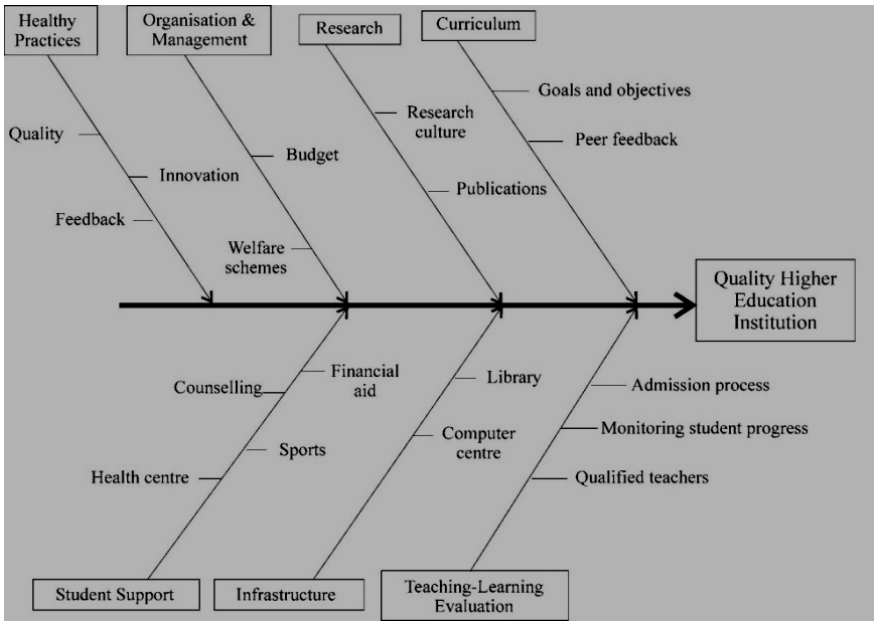
Source: Owlia and Aspinwall (1996)

2) **Pareto Analysis**

Pareto analysis is a improvement tool used to find out the important problems for solutions. This tool is helpful to say that 80% of problems arise from 20% of the causes. It is also known as 80-20 rule. Therefore by focusing on 20% causes can improve 80% results. This is a very important principle in quality assurance, and thus identifying the critical 20% in performance another important principle in quality assurance is 20% performance may increase 80% satisfaction or solutions.

3) Fish-bone diagram

The fish-bone diagram is also known as cause-and-effect diagram. It is an analytical and problem solving tool. it is required to prioritized and organize the ideas generated form brain storming sessions In a diagrammatic representation, the effect is placed at the right end of a broad arrow. Major causes are recorded on either side of the effect line. Minor causes are aligned to the respective major causes as clusters, as depicted in fig. 2



Source: Owlia and Aspinwall (1996)

Towards a Culture of Quality

Managing Higher Education Institutions

Are higher education institutions different from other organizations?

To maintain the quality standards in educational institutions student intervention is very important s o that they can provide the feedback about the teacher teaching ability and approachability and mentoring the students.

NAAC has introduced stakeholder involvement process where in it has recognized student community as major stakeholder. It has suggested every HEI's has to prepare a 'Student Charter' to highlight the rights and obligations of the students. It is for the purpose of providing qualitative education according to the needs and requirements of the students. NAAC has issued a 'Model Student Charter' for adoption in the HEIs. NAAC has also initiated the non-academic activity of managing the finance that also have an impact on academic activity.

This quality initiative should b e like a continuous improvement where it is called as PDCA cycle or kaizen technique in order to increase the quality and reduce the gaps in the organization performance

1. P (plan) – gathering of data to identify and define the issue(s)/problem(s) that need improvements and identify ways to achieve them.
2. D (do) – implementing the plan by using a trial run, a test group, etc.
3. C (check) – analysing the results to see if there is good agreement between the original goals and what was actually achieved; make adjustments if necessary.
4. A (act) – depending on the results from the check step, acting on the plan on a full scale or conducting further work by beginning with the P (plan) (Temponi, 2005).

Internal Quality Assurance Cell

In India, NAAC proposes that every accredited institution should establish the Internal Quality Assurance Cell (IQAC) to continuously improve quality as 'enhancement' and sustain the good work of the institution. IQAC will facilitate the process of internalization of the quality and play a catalytic role in performance improvement of the institution. All the accredited institutions with IQAC are expected to submit annual quality assurance reports to NAAC as self-reviewed progress reports. IQAC will create internal awareness on quality issues and also establish credibility for the external quality evaluation.

Conclusion

As quality plays a very important role in every sector, education sector comes under service sector and it is very crucial to evaluate the quality in the education sector and ensuring the continuous quality improvement. NAAC and other statutory bodies has established in our country to ensure quality in higher educational institutions. All the educational institutions have to apply various quality techniques and feedback mechanism to provide qualitative education to the students according to their need and requirement. Another perspective of measuring quality in the higher educational institutions are applying six sigma methodologies to ensure errors are not repeated at all and providing physical and educational sources properly to the students and developing a knowledgeable society. Teacher, universities, college should be transforming the students by integrating the external environment factors in the syllabus though systems approach.

References:

1) Abdullah, F. (2006a), " measuring service quality in higher education: HEDPERF versus SERVPRF , marketing intelligence & planning , vol 24 No.1 pp.31-47

2) Abdullah, F.(2006) "measuring service quality in higher education : three instruments compared" , international journal of research and method in education , vol29, No.1 pp 71-89

3)Alves, H. and raposo, M (2007)" conceptual model of student satisfaction in higher education ", total quality management , Vol 18, No.5 PP571-88

4) Douglas, C. (2001). Assessing quality in higher education. *Liberal Education*, Vol. 87, No. 2, spring.

5) Quality Assurance in Higher Education , Dr. sanjay mishra , Director NAAC

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

30.

OVER VIEW ON QUALITY IMPROVEMENT AND QUALITY ASSESSMENT

N.Chandan Babu[1]
Lecturer in statistics,
Bhavan's Vivekananda College, Sainikpuri
Email-Id: chandannomula@yahoo.com

P.Rajini[2]
Lecturer in statistics,
Bhavan's Vivekananda College, Sainikpuri
Email-Id: rajini_peddi@yahoo.com

Raju Kommarajula[3]
Data Scientist,
Verizon Data Services, India
Email-Id: rajstas.2010@gmail.com

Abstract:

The Indian higher education system is in a constant state of development and movement due to the increasing needs of spreading access to higher education, impact of technology on the delivery of education, increasing private participation and the impact of globalization. Acquiring awareness of these advancements and the role of higher education in society, NAAC has developed five root values: contributing to national development, fostering global competencies among students, inculcating a value system in students, promoting the use of technology and quest for excellence. Higher education institutions in developed countries have had quality assurance systems and preparations to improve the quality of their teaching, research and direct community service activities. In recent years, quality assurance has also gained favour in universities in developing countries. Assuring and enhancing the quality of teaching and learning in Indian universities is currently of major concern. Exploration for excellence and learner satisfaction represents an historic commitment and foundation of important higher education milestones relating to Quality and Accountability. In higher education system evaluation is also important for quality assurance, the evaluation consists in the systematic, documented and detailed assessment, marking and recording of the work of higher education institutions.

This paper reviews and suggests the main definitions and concepts of Teaching and learning, Quality assurance system, Quality improvement and Quality assessment. Therefore the paper titled as "Over View on Quality improvement and Quality assessment".

Key words: quality assurance, evaluation, higher education, quality of teaching and learning.

Introduction:

Universities were dedicated to the spirit of learning, now days they need to cover not only learning, but also research and entrepreneurial activities. This extension of activities exposes the need to develop Quality Management. Quality Management aims to develop a "Quality Culture" where Quality is seen as everyone's responsibility. The three circles of Quality Management activities are:

1. Quality Planning,
2. Quality Control and,
3. Quality Assurance.

Quality Planning selects applicable procedures or standards for a particular objective. Quality control

ensures that they are followed. Quality Assurance is a ceremonial process of evaluating (assessing, monitoring, ensuring, maintaining and improving) the quality of a higher education system, organization or program.

The function of a Quality Assurance system in Higher Education is to establish a common access, at national level, for the recording, understanding and systematic evaluation of the work of Academic Units (Schools and Departments) and of the Institutions to which they belong. The main objective is to support the Academic Units to achieve their mission, respecting the specific features which distinguish them from other Units or Higher Education Institutions, nationally or internationally. Globally, the perspective of the quality assurance system aims to provide objective evidence and a rational understanding of the progress of higher education in India. The ultimate aim is to establish a documented recommendation concerning specific actions for the establishment or improvement of institutions and for shaping directions and other improvement strategies and for quality assurance in Higher Education. The comparative ranking or rating of Higher Education Institutions, of Academic Units or of the members of the academic community is beyond the scope of the Quality Assurance System.

Quality Assurance concerns all Higher Education Institutions in the country. It is independently implemented at the level of Academic Units as well as to Institutions as a whole, through their Academic Units and seeks the continuous improvement of the work they produce.

Review of literature:

Fatma Mizikaci[1]: He studied the three concepts, quality systems in higher education, program assessment and systems approach, are found to be persistent and adaptable with one another with regard to the goals and organizational structure of the higher education institutions. The planned assessment model provides a new aspect for higher education management for the effective and efficient implementation of the quality systems and program improvement.

Martin A. O'Neill[2]: He addresses the issue of service quality assessment within the higher education sector and focus on the need to develop measures that are both psychometrically and practically sound.

Panagiotis Trivellas and Dimitra Dargenidou[3]: He collected a sample of faculty and administration members at the Technological Educational Institution of Larissa; a structured questionnaire was developed to measure institute's perception, job comfort and the quality in services and internal processes.

Maria Tsinidou, Vassilis Gerogiannis, Panos Fitsilis[4]: He described the relative weights of the factors that contribute to the quality of educational services as it is perceived by students was measured

Objectives of the study:

1. To examine the influence of organisational culture and job satisfaction on the quality of services provided in higher education.
2. To test and compare the relative efficacy of three measuring instruments of service quality.
3. To study the types of evaluation of quality in higher education.

Present Study:

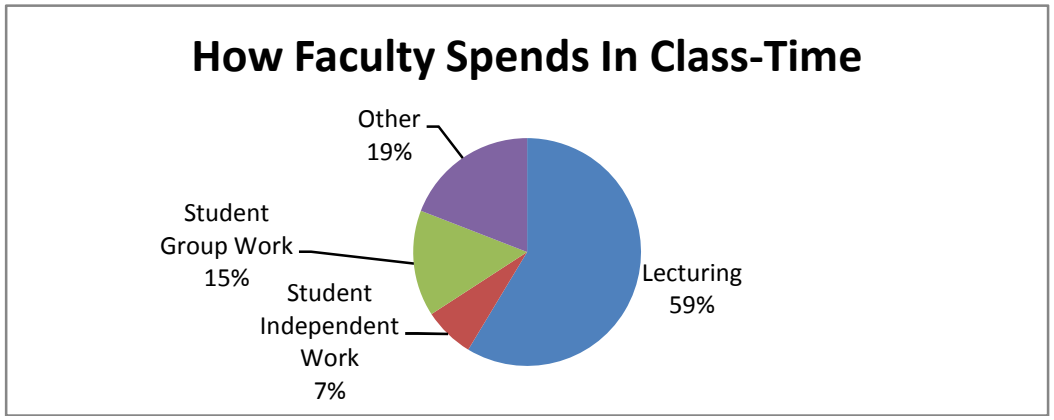
Teaching and learning

The institution should significance the development of the learning process towards state of the art standards. A better balance between research and teaching has to be found. It is import to raise the awareness regarding the diversity of funding of the institution and the relation with the external stakeholders. The need to respect the institution policies as well as the national policies and legislation should be stressed on.

The Guidelines on Learning that Inform Teaching Based.

1. Effective learning is promoted when students are passionately committed in the learning process.
2. Effective learning is supported by a climate of inspection where students feel properly challenged and activities are linked to research and scholarship.
3. Activities that are interesting and challenging, but which also create space for students to have fun, can enhance

the learning
experience.
4. Structured occasions for reflection allow students to explore their
action, claiming current beliefs, and develop new practices and
understandings.
5. Learning is more effective when prior experience and knowledge are
recognized and built on.
6. Students become more committed in the learning process if they can see
the importance of their studies to professional, disciplinary and/or
personal contexts.
7. If dialogue is encouraged between students and teachers and among
students (in and out of class), thus creating a community of learners,
student motivation and engagement can be increased.
8. The educational experiences of all students are enhanced when the
diversity of their experiences are acknowledged, valued, and drawn on in
learning and teaching approaches and activities.
9. Students learn in different ways and their learning can be better
supported by the use of multiple teaching methods and modes of
instructions (visual, auditory, kinaesthetic, and read/write).
10. Clearly articulated expectations, goals, learning outcomes and course
stipulations increase student motivation and improve learning.
11. When students are supported to take responsibility for their own
learning, they are more likely to develop higher-order thinking skills
such as analysis, synthesis, and evaluation.
12. Learning can be enhanced and independent learning skills developed
through convenient use of information and communication technologies
13. Learning cooperatively with peers – rather than in an individualistic or
ambitious way – may help students to develop interpersonal,
professional, and intellectual skills to a higher level.
14. Effective learning is facilitated by assessment practices and other
student learning activities that are designed to support the achievement
of desired learning outcomes.
15. Purposeful and timely feedback to students improves learning.



Quality Assurance System

The Quality assurance system is based on a theory that has become a definitive in Indian quality evaluation. This concept consists of both quality management and quality enhancement. It can be used in two ways:

- It refers to the QA (Quality Assurance) system of an individual HEI (Higher Education Institution)
- To the national system for encouraging Higher Education Quality.

The institutional QA system refers to the entity confident of the quality assurance organisation, respective responsibilities, procedures, processes and resources.

Quality Improvement

The expectation that an institution will have in places a plan to monitor and improve the quality of its programs. In most cases, quality assurance and accrediting agencies require that established procedures ensure that this is an ongoing process.

Quality Assessment

Evaluation Types

Evaluation types can be summarised according to use as:

1. Evaluation
2. Accreditation
3. Auditing
4. Benchmarking.

These different approaches are used to evaluate three different targets:

- Organisations
- Degree programmes
- Subjects.

And these different approaches can also be used for the development of operations to indicating accountability.

1. Evaluation:

Evaluation is the systematic appraisal and highlighting of value or the comparison against objectives and targets. It can also be a "measurement" of performance (assessment, as in quality assessment) against a set of criterion.

Internal evaluation or self-evaluation

A process carried out under the importance of those working within an institution, collect administrative data and through the questioning of students, lecturers and other staff. It may be considered as a collective institutional reflection and an opportunity for quality enhancement.

External evaluation or External review

The process through which a particular external body collects information and evidence about an institution or a schedule, in order to make a statement about its quality. External evaluation is normally carried out by a team of external experts, peers or inspectors, by participating in different committees.

Finally, external stakeholders should also be elaborated in the quality processes since they provide the social connection of the institution with its environment.

2. Accreditation

The word 'accreditation' means to prove something creditable and publicly acknowledge its worth in relation to external criteria. Accreditation usually refers either to an official approval of HEIs and their schedule or to the awarding of different quality tags to HEIs and their programs.

Accreditation is the process of external quality review used in higher education to scrutinize colleges, universities, and higher education programs for quality assurance and quality improvement. Success results in an accredited institution and/or schedule. In some countries, it sends institutional authority to offer specific programs.

3. Auditing

Auditing is independent external evaluation to ascertain whether a QA system conforms to its stated objectives, is effective and fits its purpose. Auditing does not address the purpose or the results of operations as such but evaluates the processes that the HEI uses to manage and improve the quality of its education and other activities.

A process of review of an institution or program to determine if its curriculum, staff, and infrastructure meet its stated aims and objectives. An audit focuses on liability of institutions and schedules.

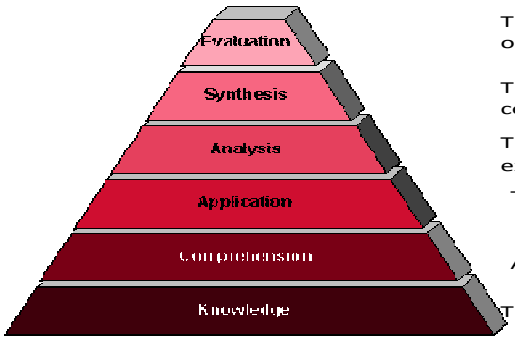
4. Benchmarking

Benchmarking is the process of compare inputs, processes and outputs either between HEIs or within an institution.

To get the ability to draw conclusions from data or from information that provides factual information we use Bloom's Taxonomy. It may also include asking for a report or interpretation of meaning from a given description.

Bloom's Taxonomy was created in 1956 under the leadership of educational psychologist Dr Benjamin Bloom in order to promote higher forms of thinking in education, such as analyzing and evaluating concepts, processes, procedures, and fundamentals, rather than just remembering facts. It is most often used when designing educational, training, and learning processes.

Blooms Taxonomy (1956)



The judgement and evaluation of characters, actions outcome etc., for personal reflection and understanding

The organization of thoughts, ideas, and information from the content

The comparison and contrast of the content to personal experiences

The converting of abstract content to concrete situations

An understanding of what was read

The recall of specific information

The three *discipline* of educational activities or learning are

- **Cognitive**: mental skills (*knowledge*)
- **Affective**: growth in feelings or emotional areas (*attitude or self*)
- **Psychomotor**: manual or physical skills (*skills*)

Summary:

An adequate and civilized senior leadership team is an essential requirement as an enthusiastic supporter of developing a quality culture within the institution.

A specific senior administrator (vice rector, dean, etc.) should be in charge of co-ordinating the quality process. His/her responsibilities will include:

- Organisation of an internal quality network
- Enhancing Communication flow between units
- Developing a 3-step learning process: learn, apply, disseminate
- Identifying the specific skills in the institution
- Advance innovative ideas in order to solve problems
- Measuring improvements in the quality actions
- Assuring quality
- Analyzing the reports provided yearly by each unit about its activities
- Auditing the activities in cooperation with a senior manager
- Benchmarking the outcomes.

In addition, distinct offices at the institution will have to guide the quality process particularly the international office and the accounting/finance office. Staffs are responsible for the development of quality culture as much as the senior administrator. Institutions are endorsed to define incentive and beneficial schemes to stimulate the adoption of the quality procedures by the staff.

Similarly students are also essential members in the development of the quality culture. They need to become involved in different actions:

- Through the assessment of programmes and learning processes
- Volunteering in student service areas and in decision making.

References:

1. **BaibaRivza**[a] **VeronikaBikse**[b] **IevaBrence**[c] "Evaluation of Higher Education Study Programmes and their Development Trends as Drivers of Regional Growth" Procedia Economics and Finance Volume 26, 2015, Pages 643-650

2. Bonwell, C. & Eison, J. Active Learning: Creating Excitement in the Classroom, ERIC Clearinghouse on Higher Education, Washington DC, viewed 20 June 2007, Checkering, A. & Gamson Z. 1987, "Seven principles for good practice in undergraduate education", Reprinted by University of Illinois, Springfield, viewed 20 June 2007.

3. Fatma Mizikaci "A systems approach to program evaluation model for quality in higher education", (2006) Quality Assurance in Education, Vol. 14 Issue: 1, pp.37-53.

4. Maria Tsinidou, Vassilis Gerogiannis, Panos Fitsilis, "Evaluation of the factors that determine quality in higher education: an empirical study", (2010) Quality Assurance in Education, Vol. 18 Issue: 3, pp.227-244.

5. Martin A. O'Neill, Adrian Palmer, "Importance-performance analysis: a useful tool for directing continuous quality improvement in higher education", (2004) Quality Assurance in Education, Vol. 12 Issue: 1, pp.39-52.

6. Panagiotis Trivellas and Dimitra Dargenidou, "Organisational culture, job satisfaction and higher education service quality: The case of Technological Educational Institute of Larissa", (2009) The TQM Journal, Vol. 21 Issue: 4, pp.382-399.

7. Ramsden, P. Learning to Teach in Higher Education, Routledge, London, p. 102. (1992)

8. Stein, D. Situated Learning in Adult Education, ERIC Clearinghouse on Adult Career and Vocational Education, Columbus OH, viewed 23 March 2004. (1998)

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

31.

BRIDGING THE GAP BETWEEN INDUSTRY-ACADEMIA THROUGH SKILL BASED LEARNING

M. Amitha[1]
Dept. of Computer Science
Bhavan's Vivekananda College, Sainikpuri
e-mail:maramamitha@gmail.com 9640077655

N. Sharon Rosy[2]
Dept. of Computer Science
Bhavan's Vivekananda College, Sainikpuri
e-mail:sharon.2610@yahoo.co.in 9347627325

Ch.N.V MallikharjunaRao [3]
Dept. of Computer Science
Bhavan's Vivekananda College Sainikpuri 9052648821

ABSTRACT:

A shortage in finding appropriately skilled labor is now-a-days emerging to become a more complex challenge to an Industry's growth and future. With expansion taking place across sectors like Information Technology, Management, Banking and financial services (BFSI), retail, manufacturing, pharmaceuticals, SMBs, outsourcing or off shoring companies, service providers, etc there already exists a large need for skilled labor.

This has indeed led to an unknowing gap between the 'demand' required by the Industry and the 'supply' produced by the educational institutions. Looking at the education system, reveals that the number of technical institutions, has actually more than tripled in the last decade, according to the All India Council of Technical Education. However, part of the skills gap problem is that only a small percentage of the youth go on for higher education. Even the best and most selective universities generate very few graduates of insufficient quality with few skill sets required by the industry.

This bridge is making it harder to create a strong and continuous skill required by the industry.

The education system should adopt the best practices to bridge the skill gap and make students equipped for the industry. In this paper, we would like to suggest a few best practices that can help build the divide between academia and industry using skill based learning.

KEYWORDS: *skill based learning, industry oriented curriculum, strong and continuous skill, academia-industry divide, best practices*

Introduction

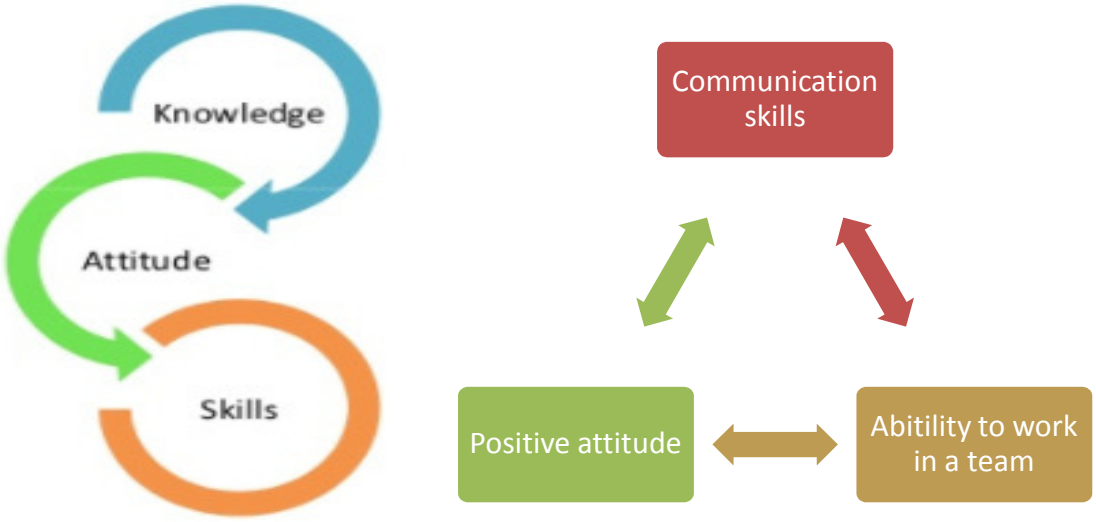
The goal of education should be to provide complex learning environments for student's which incorporates authentic learning, assessing and personal development. It will allow learners to solve the types of the complex problem they will face in real life.

The education system should adopt the following best practices to bridge the skill gap and make students equipped for the industry,

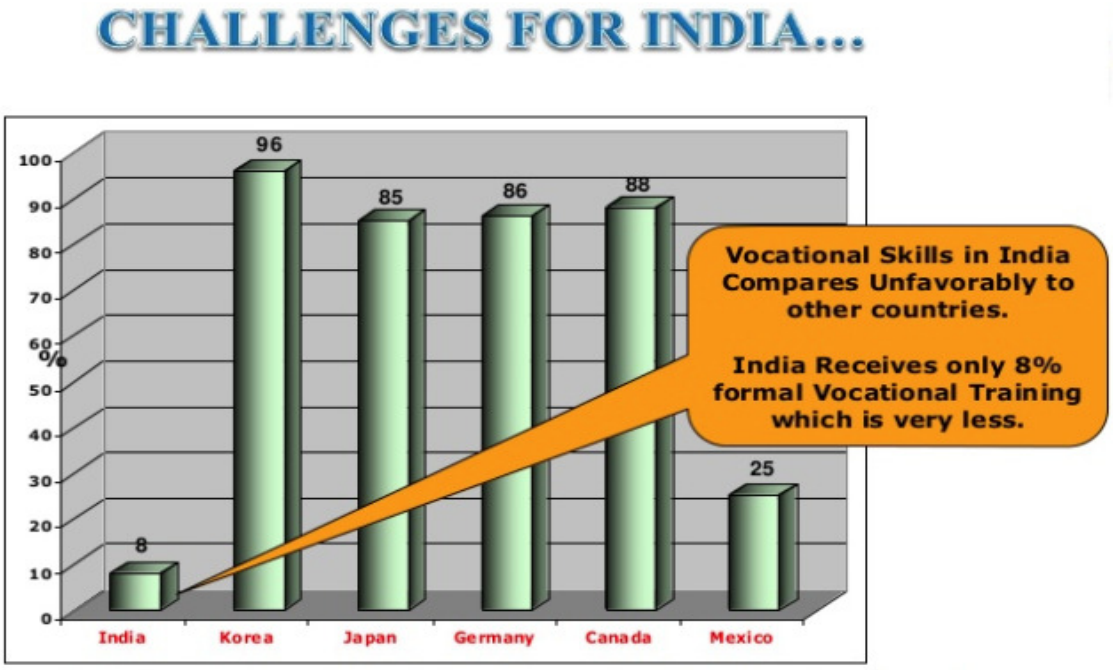
1. Developing the industry oriented curriculum
2. Involving the industry while designing the curriculum
3. Inviting the industry to setup their R&D labs in colleges
4. Inviting the industry to deliver part of the curriculum to ensure that the curriculum is more practical oriented

Collaboration creates an opportunity for learners to share their understandings with others and to have others do the same with them. This provides multiple perspectives to each learner, and this negotiation process between peers to enhance understanding Employers are really looking to hire

top talent; they are trying to hire with more precision, and therefore it makes it a bit more competitive both for other employers who are competing for these top talent graduates but also for the candidates themselves. Employers generally look in for three main traits in this economic climate: communication skills, the ability to work in a team and a positive attitude.



PRESENT SCENARIO:



Source
https://www.google.co.in/search?q=vocational+skills+in+india+compares+unfavorably+to+other+countries&safe=active&source

DRAWBACKS IN INDIAN EDUCATION SYSTEM:

- **No practical knowledge:**
  In most of the Universities, there is a lot of attention given only to theory and books, however, practical knowledge is completely being ignored. When these students pass the exam, they forget all the things they have studied due of lack of practical experience. It is an on-going myth in India, that most of the parents and teachers expect their students to score high in the exam (rather than acquiring the quality knowledge) and thus the education becomes a rat race. Practical knowledge and skill based education is still far away from the reach of students studying in schools, colleges and universities.
- **Lack of Research or critical analysis:**
  Problem solving skills are one of the crucialthings an industry requires among their students when they complete their studies and start looking for jobs in order to earn money and build up their career. In India, despite the fact that we have the highest number of engineering graduates, still we lack technological innovation. Students must have thecapability to solve problems and difficulties that the country is facing today. Most of the students don't have their own approach towards any problem, however they do so only on the instruction of their parents, teachers, neighbors and friends.
- **Absence of personality development program:**
  Higher Education in India demands student's performance in terms of marks leaving aside their exposure to the external world. When students complete their graduation and enter into their respective jobs, they face problems to get a job as per their capability simply because they don't meet the criteria and skills required for the job. Organizations wish to hire those individuals who are aware of the course of the action.
- **Absence of Entrepreneurship development scheme:**
  The majority of the students want to get a job after finishing their education. They don't like starting their own business because they are of the view that they can't become a business person and face the challenges during the circulation of their business. The absence of Entrepreneur abilities has become a major obstacle for the progress of our country in several fields
- **Lack of industrial intervention in curriculum design:**
  Industrial intervention in curriculum designing is not visible in our country. Industries will show interest on hiring people when the curriculum is aligned with their technical and management requirements.
- **Outdated syllabus:**
  There is an urgent need to change the present system of higher education in the country. We need to ensure quality in education as well as quantity. Lots of technological and scientific improvements are taking place in India and therefore the Graduate and post graduate courses must be updated as per the industrial and technological development.

To look at the global perspective, India is the only country across the globe that stands the least in providing a formal vocational training. In countries like India, we are restricting our educational training only to the curriculum designed, however, we do not focus on providing a training that can help a student in his overall development to make him equipped with the industry and its mode of work**.**

Relevance of Academia to Industry:

"It's crucial to teach students a combination of academic and practical skills to produce employable graduates."- Trine Falbe.

There are great benefits that can be reaped from an industry-focused education that concentrates on both academic and practical skills. Firstly, graduates have a clear competitive advantage when they apply for jobs. Secondly, this approach provides a great deal of learningfor both students and teachers. Obviously,when it comes to motivation through learning, having fun also plays a crucialrole.

To be industry-focused means two aspects: keeping up with the industry and involving with it. We can teach them how to make the right things for the right people and communicate it the right way, all with a combination of theory and practice.

In the present day, businesses are looking for innovative solutions from the academia to help meet their business needs of higher productivity and

lower costs, yet increase efficiency and proficiency. Higher education has to be fostered based on market-driven approach in order to encourage manpower development from the grassroot level itself. The idea is to involve the private sector in higher education.

To survive in such a fast-paced digital world, it marks it very important that educational institutions set their focus on the industries they train their students to work in. Unfortunately, this seems to be a very rare case.

EXPECTATIONS OF INDUSTRY:

1. The foremost requisite of industry is that they look in for Proper Attitude.
2. Another important requisite is commitment, self-dedication, self-discipline and self-motivation.
3. Strong willingness to learn- Ambitious
4. Must be comfortable to work in a team and collaborate- Should also be capable of leading a team.
5. Understanding of products, solutions and services and updated technology- Knowledge beyond textbooks.
6. Communication skills- An Employee should be able to communicate his/her thoughts effectively using proper words. This helps employees to evolve into better candidates for global companies.

EXPECTATIONS of INDUSTRY vs PERFORMANCE DELIVERED

Attitudes	Expectation (%)	Performance (%)	Gap (%)
Aptitude and Willingness to Learn	**93%**	**47%**	**46%**
Creativity	**81%**	**27%**	**54%**
Self-Discipline	**93%**	**34%**	**59%**
Self Motivated	**93%**	**34%**	**55%**
Commitment and Dedication	**94%**	**37%**	**57%**
Ethical Behaviour	**87%**	**42%**	**45%**

Source:https://www.slideshare.net/insighthr/bridging-the-gap-between-industry-and-academia

Reasons behind the Gap between Academia and Industry

1) Different peoplefrom different sectors have their own mindsets; withdifferent perspectives and different expectations.

2) The curriculum is static in nature while its application is dynamic.

3) Both academicians and industrialists are pursing towards entirely different goals. The academia is striving for recognition from their peers, whereas, the Industry is striving to survive.

4) Lukewarm attitude of lecturers to surrender themselves for trainings and workshops.

5) Industry thinks in terms of short range goals whereas academia has a long range perspective.

6) Industry prefers proven solutions with a low risk, whereas academia is interested in creating newsolutions with a high innovation rate.

7) Industry seeks the minimum solution to minimize their risk, whereas academia strives for a maximumsolution to maximize their recognition.

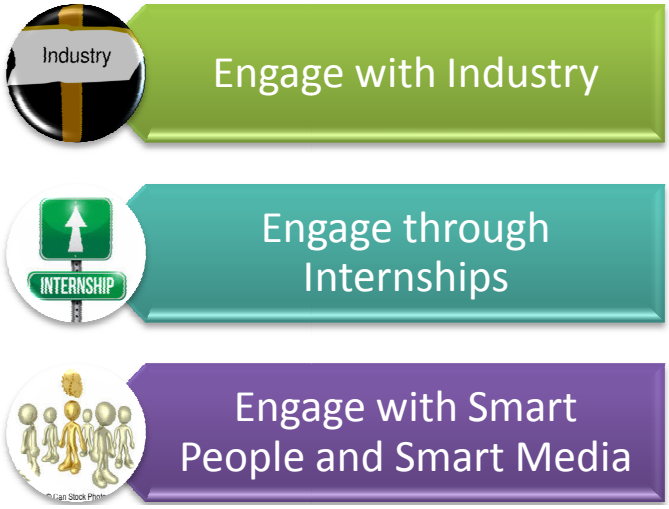
8) Academics seldom attend industrial conferences as they feel this is below their standard.

9) Academics look down upon industrial newspapers and magazines.

10) Academics are not aware of the problems and constraints of industry.

11) Industry prefers proven solutions with a low risk, whereas Academia is interested in creating new solutions with a high innovation rate.

HOW TO BRIDGE THE ACADEMIA AND INDUSTRY GAP:



1. **Engaging with industry**

Several things can be done to ensure the industry focus. In addition to keeping up and implementing the current trends and technologies into the daily classes, a few smart people from the industry can be invited to conduct workshops with our students and teaching staff. By doing so, fresh ideas and inspiration can be incorporated and an insight into current practices can bebrought into the classroom.Furthermore, the students get an opportunity to work with many different companies in various projects throughout the course. Some of them could be real clients like, the students have to function as project managers as well as developers and designers. Other projects include agencies that the students can get professional feedback from.Such projects can be referred to as 'real life' projects, because that's exactly what they get to do. The students get an opportunity to work on projects similar to the ones they will be working with as future professionals.

2. **Engaging through Internships**

The students can be asked to do a 12-week internship during their final semester or so, that can help them prepares for the future in areas that we as an educational institution cannot.There can be more colleges and universities related to the digital world that can take on this industry-focused approach. But it only requires, startingto thinkof a curriculum not as a permanent thing, but as a reflection of the current requirements of an industry.It isn't rocket science to teach with an industry focus. It can be included as a part of the curriculum to do projects with inspiring clients and agencies?

3. **Engaging with Smart people**

Engaging with smart people on social media, attending conferences, joining networks, and experimenting on side projects, is all worth it because the benefits vastly outweigh the work involved. It's not just about teaching the most recent technology or information or discovery , it also matters about leading the way and guiding the students to be on their toes to be able to keep up with the fast pace. That, combined with allowing students to do what they love and having fun while doing it, will make a difference, and, ultimately, will improve the industry that we love.

To help students find long term success and rewarding jobs, it is just not enough to focus solely on support services and bookish knowledge or curriculum. Instead, as responsible people we will need to give the students the necessary and exact skills to achieve them. If students are not equipped with the right skills, their degree will be of little practical use, regardless of how supported they were through the process.

PROPOSED CHANGES TO BE MADE IN ACADEMICS:

Source:http://icecommittee.org/reports/Report-Industry-Academia-Partnerhsip-Final.pdf

Changes made to the educational institutions based on the industry needs will not only create a center of attentionto individuals looking for employment, but also corporations looking for professional development opportunities for their employees.

Employers say that colleges and universities must work more closely with industry in order to teach to their needs.

We present here, what a few of the employers had to say about the usefulness of higher education institutions in a survey:

- Institutions need close consultation with business before mounting specific courses for specific industry disciplines.
- Institutions need to offer classes more closely tailored to the real world. Universities should partner with companies to offer the curriculum that will make the students more valuable to companies.
- Industry personnel should be involved in curriculum design.
- Seminar, group discussions, brain storming and collaborative project work and case study should be used to develop cognitive abilities and soft skills.
- Practical work as per the curricular requirements must be accomplished.
- Laboratories and workshops must be strengthened to provide adequate practical training.
- Structured Industrial training
- Industry must support the institutions in providing training places for both students and teachers.
- Curriculum to be framed to prioritize small scale industries.
- Providing hands-on experience for every workshop so as to create interest among the students.
- Provide more time and space to the students for a deeper learning.
- Emphasize on activities to students so as to enhance their critical thinking and community action.
- Problem solving skills can be learned by participating in problem solving projects with the use of creative and critical thinking.
- Schools and colleges must pay attention to case studies, research based assignment and problem solving project so that students can get the fresh ideas about their surroundings and can easily solve the problem they face.
- It makes it essential to start personality development program is schools and colleges to improve the education standards.
- Our education system should be such that it should generate enthusiasm to become a business person and it should also produce scientist, writers, thinkers, designers etc. only that India could become knowledge based economy and claim to be regarded as superpower.

PROPOSED INITIATIVES TO BE TAKEN BY INDUSTRY

- **Industry oriented curriculum:**
  The curriculum for the major subjects should be aligned with the industry so that

colleges can produce industry ready students.

- **Involving industry in the curriculum design:** Senior technical and HR executives should be involved while designing the curriculum so that the industry is encouraged to invite students for the R&D on their respective product line.
- **Setting up R&D labs in colleges:** Industries should setup their R&D labs in the college so that the final year students are encouraged to work on real-time projects those can be new product line or feature enhancements of the existing product.
- **Inviting the industry to deliver classes:** As the part of the curriculum delivery, we should invite senior people from various industrial sectors so that students can have better visibility of the industry requirements.

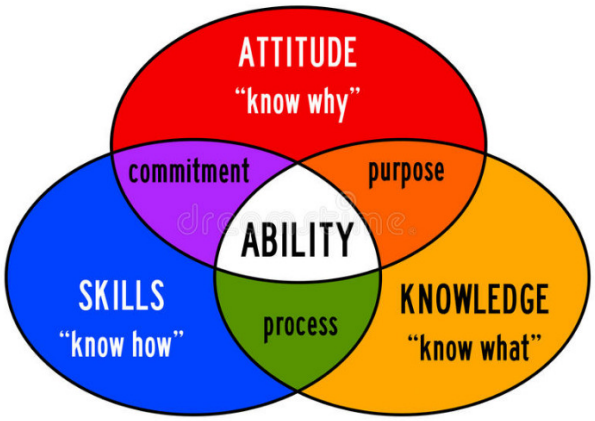
Source:http://icecommittee.org/reports/Report-Industry-Academia-Partnerhsip-Final.pdf

PROPOSED MODEL:

We propose a new model which should replicate a small industry model in each college where senior students and staff should play different roles such as,

1. HR department should be formed by the MBA/BBA students on rotational basis.
2. Accounts department should be formed by the MCom/BCom students on rotational basis.
3. Administration department should be formed by interested students of any stream.
4. Computer application developers should be formed by the MCA/BCA/BSc students.
5. Marketing and Sales team should be formed by MBA/BBA/BCom students.
6. Board of directors should be selected from the senior teaching faculty.
7. Principal should be the board chairman.
8. Students should spend at least 2 hrs in day for the company and can get stipend.
9. Industry should be registered and sales team should reach various industries and get orders for Software/Electrical/Electronics/management module development under the guidance of board of directors.
10. Earned money should be spend towards stipend, marketing expenses and setting up developing R&D labs.

CONCLUSIONS:



Source:https://www.google.co.in/search?q=knowledge+skill+attitude

Finally, it is very important for policy makers to accurately know and understand the various dimensions of skill gaps by sectors, levels and regions in order to plan for filling those gaps.

- There is an issue of whether young graduates as well as those who are already in the workforce have the opportunity to update their skills to suit the changing labor-market demand. It is not accurately known how incoming flows of immigrants have contributed to filling skills gaps.
- In the context of these uncertainties and challenges, industry-academia partnerships (IAPs) have been proposed as a way forward.
- Government should encourage industries and post-secondary institution to explore potential in partnership and showcase best practices.

Motivation for post-secondary institutions

- It is important to motivate academic partners to be pro-active, knock on the industry door and extend hands for partnership. Provisions can be introduced in relevant policy that motivates post-secondary institutions to bring relevant industries to the table for designing and delivering skill sets within the range of courses they design and deliver.
- When certain courses fail to attract a new generation of learner or there are increasing complaints about deficiencies in the skill sets provided, that should motivate the post-secondary institution to review their program and work for innovation.
- Policy makers should think of ways to make post-secondary institutions more accountable for what they promise to deliver. It is safe to argue that the more the post-secondary institution works with industries, there is more opportunity to enhance the employability of their degrees/courses.

Caution should be taken while adopting from international experiences

There is a lot of discussion going on in the academic and policy circles around the world regarding suitable models of education and training for the new century. A substantial discussion is taking place around the success of the German model known as 'dual-model' which offers flexibility to the learner and is highly career-focused. However, a caution has also surfaced against a view which suggests other countries copy that model post considering the differences between the two countries(Germany and Country 'X'), legally, politically, culturally and in its administrative structure.

References:

1. Prachi Kapil, Bridging the Industry- Academia skill gap - A conceptual investigation with special emphasis on the management education in India,.iosr journals;Volume 16, Issue 3. Ver. III (Feb. 2014), PP 08-13

2. King Ceridwyn, Funk Daniel C & Wilkins Hugh, Bridging the gap: An examination of the relative alignment of hospitality research and industry priorities, International journal of Hospitality Management, Vol.30, Issue 1, March 2011, pages 157-166
3. Lokesh Mehra, Regional Manager, Corporate Responsibility, South Asia, Cisco Systems https://www.cisco.com/c/en_in/about/knowledge-network/academia-partnerships.html
4. NureniAyofeAzeez, &RaheemAjetolaAzeez, Exploration of the Gap between Computer ScienceCurriculum and Industrial I.T Skills Requirements. (IJCSIS) International Journal of Computer Science and Information Security, Vol. 4, No. 1 & 2, 2009.
5. Starkey Ken, Madan Paula, Bridging the relevance gap: Aligning stakeholders in the future of Management Research, British Journal of Management, Vol. 12, Issue supplement 12, Dec 2001, pages S3-S26
6. https://www.slideshare.net/insighthr/bridging-the-gap-between-industry-and-academia
7. https://www.slideshare.net/sahithimanjusha/college-to-corporate-a-paradigm-shift?next_slideshow=1
8. https://www.slideshare.net/sheetalsharma32/bridging-the-gap-between-academics-and-industry
9. https://www.creativebloq.com/education/importance-industry-focused-teaching-41411422
10. http://thegradstudentway.com/blog/?p=251#.WsxRFojwb4Y
11. http://thegradstudentway.com/blog/?tag=non-traditional-science-careers#.WsxRF4jwb4Y
12. http://icecommittee.org/reports/Report-Industry-Academia-Partnerhsip-Final.pdf

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

32.

CONTRIBUTION OF UG CURRICULUM TOWARDS THE SKILLS REQUIRED FOR THE JOB PROSPECT – A STUDENT'S PERSPECTIVE

Md.Kaleemullah[1] R.Radhika[2] Rahul Batra[3]

[1]Lecturer department of commerce, Bhavan's Vivekananda College,Sainikpuri,Mkm7722@gmail.comPhone no: 7207181174.

[2] Lecturer department of commerce, ST.Anns , Secunderabad

[3] student Bhavan's Vivekananda College, Sainikpuri, Rahul.batra1999@gmail.com

Abstract

Education is the key ingredient for building great and powerful India. The education plays a vital role in honing the skills required for the job prospect. Lack of relationship between education, employment and skill development in conventional education system could be the reason for it. The present alarming situation in India is 30% of youth aged 15-29 in India are not in employment, education or training. More than 60% of engineering graduates across the country remained unemployed. This indicates that there is a gap between industry and academics and there is a great necessity of policies, which facilitate industry and academic collaboration in new education policy. In this context, there is a necessity to analyze the relevance of UG curriculum for a job prospect. Therefore, the present study was undertaken to study on the contribution of UG curriculum towards honing the skills required for the job prospect. A survey was conducted with a well-structured questionnaire. The results of the study states that 37.5 respondents settled in various jobs stated that their jobs were not related to the UG curriculum they have studied.54.2% of respondent's feels that their UG curriculum did not help them in building enough skills to be employable and100 %, of the respondents recommends that including internship program as a part of UG curriculum will make students more employable to suit the needs of the industry.

Keywords: Education system, employability, curriculum, higher education

INTRODUCTION

India's share of working age population is rapidly rising in Asia Pacific region when compared to the china. As per recent statistics, over million more people will enter the job market in India by 2050. And rapid Industrialization would require more 250 million workforces by 2030. But as per present situation, the labor market is not ready to fulfill this demand. Though educational institutes are training millions of youngsters they are not getting the necessary skills which are required for their job prospect. Corporate often complain that graduates don't have required skill and talent. Not only that corporate is also giving additional training to their employees to improve employee's productivity and to make them able to match up to their expectation. But still, the gap remains the same.

According to 'National Employability report 2016, which is based on a study of more than 150000 engineering graduate students from 650 colleges, 80% of them were unemployed and only 3 % had suitable skills to be employed. In this context, there is a necessity to analysis the relevance UG curriculum for a job prospect. Therefore the present study 'Examining the contribution of UG curriculum towards honing the skills required for the job prospect ' throw light on the relevance of present UG curriculum for the job prospect.

REVIEW OF LITERATURE

Studies by PrachiKapil 2014; Volume 16(3). States those efforts need to be made in order to bring institutions of higher learning and industry to ensure that quality is delivered both ways. And a regulatory body, must be created to regulate, monitor and ensure Q&A (Quality & Assurance).

Studies by Anita Ganesh & swapna H. Mogappagowda (2017) states that this is the correct time for government to make polices and help India emerge as a skilled nation. And has to focus on advancement of skills relevant to the emerging economic environment.

Studies by David Connell, (1987), states that there are many barriers but academic researchers should be able to undertake consultancy work to increase R&D contracts and Government has to encourage companies to collaborate academia and industry.

The present study was undertaken to examine the contribution of UG curriculum towards honing the skills required for the job prospect and to analysis the various reasons for Academic and industry gap.

NEED FOR STUDY

The present alarming situation in India is Over 30% of youth aged 15-29 in India are not in employment, education or training. Not only that, in case of engineering graduates More than 60% of the eight lakh engineers across the country remained unemployed in 2016. This indicates that there is a gap between industry and academics and there is a great necessity of policies, which facilitate industry and academic collaboration in new education policy.

The present study was undertaken to examine the contribution of UG curriculum towards honing the skills required for the job prospect and to analysis the various reasons for Academic and industry gap.

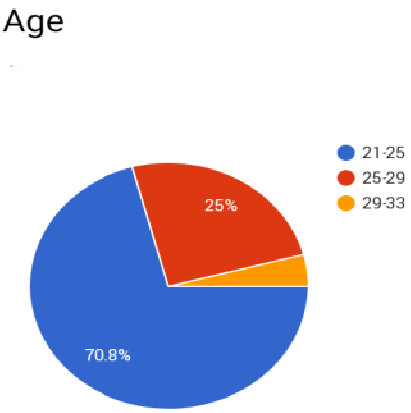
RESEARCH METHODOLOGY

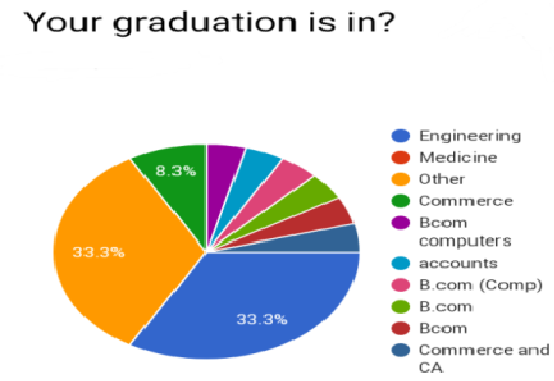
Our research is based on primary data collected through questioners. A structured questioner was prepared based on our objectives and circulated randomly. Respondents from different age group are taken into consideration for the study. This study also based on secondary data from trusted websites, magazines, newspapers.

Contribution of UG curriculum towards the skills required for the job prospect - student's perspective

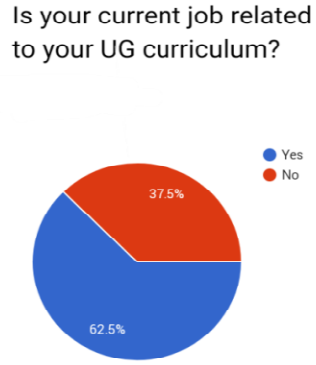
In order to bring efficiency, equity, and excellence in the Higher Education, The University Grants Commission (UGC) has initiated several measures. Most important measures among them are taken to enhance academic standards and quality in higher education by bringing innovation and improvements in teaching-learning process, curriculum, examination and evaluation systems. Universities are given flexibility and freedom in designing the examination and evaluation methods best suitable for the curriculum, syllabus and teaching. But this created difficulty for academia and the employer to understand the evaluation system. Therefore, to bring uniformity, in grading system, Cumulative grade point average (CGPA) system has been formulated. However, curriculum adopted by many universities is not helping students to improve skills required for the job prospects as students who are enrolled into various colleges, for the same programs and courses, possess different abilities and skills. This is leading to poor learning outcomes in spite of having set of standardized curriculum. Skills required for students vary from sector to sector but majority of students are lacking basic skills and abilities like communication skills, writing skills and also lack of practical exposure. This study is an attempt to analyse the student perception towards UG curriculum in enhancing skills required for job prospects.

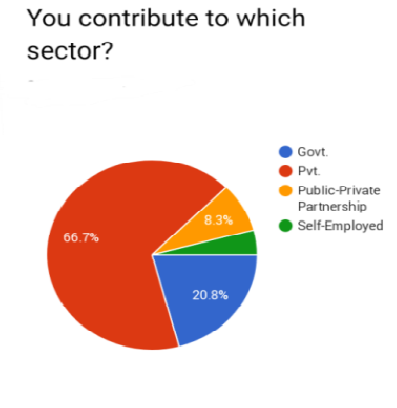
CHARACTERISTICS OF THE RESPONDENTS

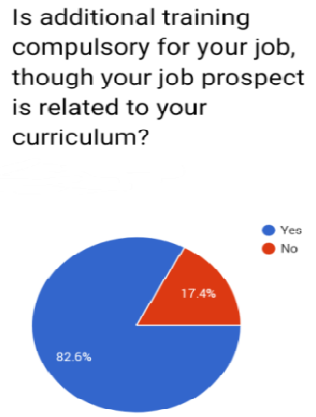




- 70.8% of the respondents belong to the age group of 21-25. Therefore the data is suitable to analysis recent passed out student's perception which are relevant for the study.
- 33.3% of them are engineering graduates and others comprise of B.Com, BA, Diploma graduates are also sharing same percentage.



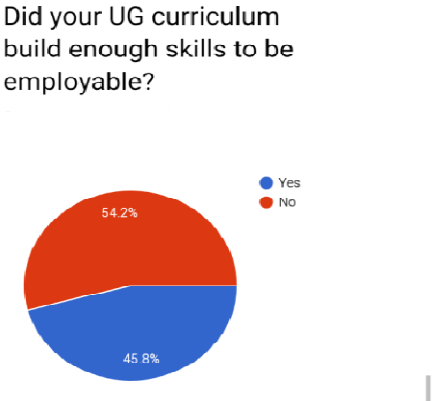


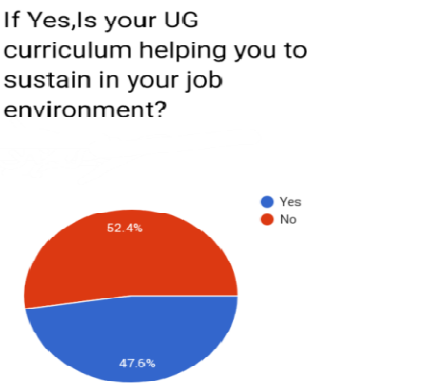


- 41.7% of the respondents got placed through walk-in interviews and 37.5% of respondents got placed through college placement cell. Therefore this interprets that role and responsibility of college placement cell is increasing in providing job opportunities and as well as in enhancing skills required for job prospect.
- 66.7% of respondents belong to private sector. Therefore we can observe that students are lacking skills, which are required to get jobs in government sector.
- 20.8% of respondents those who belong to government sector have undergone special training for getting government job

STUDENT PERCEPTION TOWARDS UG CURRICULUM IN ENHANCING SKILLS REQUIRED FOR JOB PROSPECTS.

- 37.5% of respondents are doing the job which is not at all related to their curriculum. This interprets that their UG curriculum is not helping them get jobs. This is encouraging most of the students to shift from one course to another.
- As per the study, 62.5% of respondents are in job which is related to their UG curriculum. In addition to this 82.6% of respondents feels that additional training is compulsory though job prospect is related to their own UG curriculum. Therefore we can say that curriculum is providing required degree to get qualified for the job prospect but not the required skills.





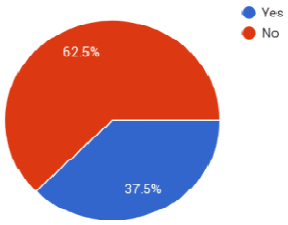
- 54.2% of respondent's feels that their UG curriculum did not help them in building enough skills to be employable. In addition to this 52.4% of respondents express that their UG curriculum is not helping them in honing required skills to sustain in their work environment.
- Majority of respondents expressed that they are finding difficulty in understanding the technical aspects of their job. Therefore there is a need for addressing this issue by both academicians and industries.

These findings are in accordance to the observations made by Prachi Kapil, (8-13) which focuses on the following reasons for Industry and academia gap

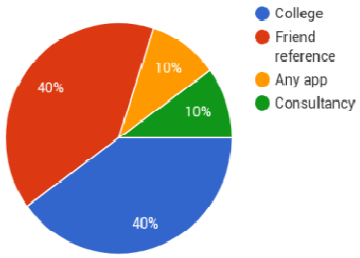
1) Academics and Industrialists have different objectives. Academic is striving to provide quality education. The Industrialist is striving to survive and make profits.
2) Industry thinks in terms of short-range goals whereas the Academic has a long-range perspective.
3) Industry prefers proven solutions with a low risk, whereas Academia is interested in creating new solutions with a high innovation rate.
4) Industry seeks the minimum solution to minimize their risk, whereas Academia strives for a maximum solution to maximize their recognition.
5) Industry is mainly concerned with costs. Academia could care less about costs; it is mainly interested in the benefits)

RECOMANDATIONS BASED ON STUDENT PERCEPTION

Were you an intern during your UG course?

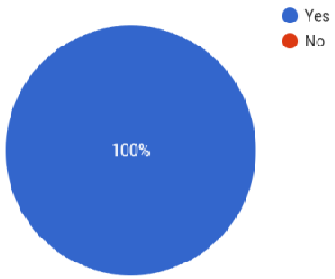


If Yes,how did you get the internship?

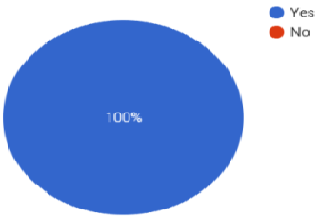


- 37.5% of the respondents have undergone internship program during their UG course and most of them get the internship opportunity through their college and friends. Therefore we can observe that there is a great demand for internship program among students during their UG curriculum as it gives great learning and working experience.

Do you think internship will give better exposure for a work environment?



Do you think including internship in UG curriculum will make students more employable to suit the needs of the industry?



• 100% of the respondents feel that internship gives better exposure to the work environment as it involves training and skill enhancement aspects of a particular job.

• As per the study 100 %, of the respondents feel that including internship program as a part of UG curriculum will make students more employable to suit the needs of the industry.

• The study recommends that internship should be a part of UG curriculum, as curriculum syllabus is rigid in nature and industry requirements keep changing. Therefore having an internship as part of UG curriculum in last semester will make students ready

for their job prospect with minimum work experience.

• The study also recommends that having research project based on an internship which students underwent will make the student aware of technical aspects related to the job and make student ready for the workforce which is lacking skilled employees.

CONCLUSION

The University Grants Commission (UGC) has initiated several measures to improve the standard of higher education. Most important measures among them are taken to enhance academic standards and quality in higher education by bringing innovation and improvements in teaching-learning process, curriculum, examination and evaluation systems. But to make students employable the best way is to bring changes in curriculum involving a compulsory internship program and research study based on an internship as rapid Industrialization would require more 250 million workforces by 2030. But the actual fact is that the labor market is not ready to fulfill this demand.

REFERENCE

1. Anitha Ganesh & swapna H. Mogappagowda- Bridging the Skills vs. Employability gap for a SMART INDIA . sep 2017 PP 05-08 in http://www.pmi.org.in/conference2017/pdfs/papers-pdfs/theme-2-leveraging-indias-skilled-population/2-Bridging-the-Skills-vs-Employability-gap.pdf
2. David Connell, (1987) "Bridging the Gap between Academic Researchers and Industrial Corporations", Industrial Management & Data Systems, Vol. 87 Issue: 1/2, pp.19-24.
3. PrachiKapil .Bridging the Industry- Academia skill gap A conceptual investigation with special emphasis on the management education in India.. IOSR Journal of Business and Management (IOSR-JBM) .2014;Volume 16(3). PP 08-13
4. https://qz.com/671225/by-2050-indias-working-age-population-will-cross-one-billion-but-where-are-the-jobs/
5. https://www.peoplematters.in/article/campus-recruitment/how-to-bridge-the-gap-between-academia-and-industry-15203?utm_source=peoplematters&utm_medium=interstitial&utm_campaign=learnings-of-the-day
6. http://www.thehindu.com/features/education/Skills-not-degrees-take-you-far/article14386289.ece

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

33.

Gender sensitization in Higher education

Dr.S.Lalitha
Associate Professor
Department of Management Studies
Bhavans Vivekananda College
Sainikpuri ,Secunderabad, Telangana

Abstract

Gender sensitisation is recognised as an important issue to be concentrated around the world and Indian context is not an exception. Education sector need to concentrate more on this issue as it will directly have an impact on overall development of the nation. The present study is an attempt to identify the areas which are being undertaken for the betterment of gender sensitization in higher education.

Introduction

Gender sensitisation is recognized and is given due importance in all policies of quality education in India. The principle of gender equity is already given in our Indian Constitution. The preamble, fundamental rights, fundamental duties and directive principles and also to reduce the gender gap in higher education is a primary focus area. In specific case of women and as we see in 1986 National Policy of Education, education is viewed as a tool for social change which can correct the accumulated distortions of the past. To bring out this change, some special initiatives that can facilitate female students' development and women empowerment are needed. We can term such initiatives to be Gender Positive Initiatives.

The Right to Education Act 2009 and its operating arm, the Sarva Shiksha Abhiyan has clearly mentioned that gender equality is one of the important and expected outcome of elementary education in our country. Schools are needed to address about the unequal gender roles at a stage when children are growing up. Women constitute 48% of the total population of India (with reference to Gender wise in Equity). There has been a phenomenal growth in number of women who enrolled in higher education from independence. The percentage of Women in Higher Education (Women enrolment) was less than 10% of total percentage of enrolment at the period of independence and it has risen to 41.40**%** till now. In terms of enrolment of women students it is 56.49Lakhs which constitute 41.40% of the total enrolment for higher education. Of the total women enrolment again 14.72% women are enrolled for professional courses.) In States wise women enrolment is highest in Goa with 59% and is lowest in Bihar with30%.

Objectives of the study

- To understand the importance of gender sensitization in education sector
- To identify the procedures and measures for the improvement of gender sensitization in higher education

Methodology

The present study is in a descriptive manner and is based on secondary data.

Scope and limitations

The present study is intended to have an understanding of the importance of gender sensitisation in India and with reference to higher education only. It mainly tries to provide a insight into the provisions and preferences being undertaken by the government and the initiatives with reference to higher education.

Female educations within last few years lead to a considerable expansion for access at the primary education level in our nation. Different geographical and cultural contexts can teach us that gender roles and inequalities are very contextual, and are rooted in cultural and social practices. A high percentage of girls especially in the rural areas drop out before they reach secondary or higher stages of education. Many of them enter into matrimony and also become young mothers before they get the opportunity to realize their full potential. The girls who are removed from formal schools are generally the ones who are not married are again inturn

bounded to take on household responsibilities. Only the ones who are able to resist their social and pedagogic pressures to drop out and able to reach the college level or university, are able to take studies seriously as they know that this privilege will be lost after they get married. Many of them are unable to pursue their goals for further education or even with their choice of vocation. There fore there is a need to develop gender-specific pedagogy and need to provide flexibility in the education system in which women can fulfil their aspirations and overcome their domestic obligations. Higher education must be able to prepare them in order to face a world with opportunities and challenges.

The nodal ministry for education in India is the Ministry of Human Resource Development (MHRD). The MHRD under it has a Department of Higher education which is the highest (apex) department" for overall development for the basic infrastructure for Higher Education sector". The University Grants Commission (UGC) is under the Department of Higher Education and MHRD acts as the coordinator and as well as the prescriber for the standards of education in the country.

UGC is established by an Act of parliament in the year 1956, is a statutory body of the Government of India. It has its head office in New Delhi and has six regional centres in Pune, Hyderabad, Kolkata, Bhopal, Guwahati and Bengaluru to cater to into various regions in the country.

Accreditation for higher educational institutions was made mandatory under UGC (Mandatory Assessment and Accreditation of higher Educational Institutions) Regulations during the year 2012. Many autonomous bodies function to grant the accreditation. First and most among them are National Assessment and Accreditation Council (NAAC) and National Board of Accreditation (NBA). The institutions are given accredition for a period of five years and this status is tied to the funds which they can receive from the UGC. Accreditations are also made mandatory for any higher educational institutions to receive the title of a university. There is an increasing requirement to expand accrediting institutions to keep pace with the growing number of higher educational institutions. The NAAC was established to operate under the UGC in 1994 to maintain the quality of higher educational institutions in India.

The NAAC has developed Gender sensitive Quality Indicators and also expects that all HEIs must try to use these indicators not only for assessment purpose but also as an integral part of the overall functioning.

Recently NAAC, as per the desire of the MHRD has initiated the process to integrate the guidelines with self-study report formats. This process will take its course, as an middle step, it has decided to request all the assessors to take into consideration the compliance of the guidelines when they arrive at the judging on quality of institution in the process of Accreditation and also Reaccreditation. Many criteria and indicators are developed to provide as a base for assessment and accreditation. Many of these indicators do reflect academic, administrative, infrastructural, and financial and human resources. However, it is also noted that there are no gender related dimensions captured in the assessment process. To make sure that the resources from women are also utilized effectively, it needs to include gender components or atleast get the gender wise disaggregated data for assessing the gender balance and make appropriate interventions by the institutions.

Documents along with the copies of action Plans to promote participation of differently-able persons in Higher Education" and "Gender Sensitive Quality Indicators" mark a new beginning of a new initiative of the NAAC -Assessment Update. This series is expected to keep the assessors to be informed about the latest trends and as well serve the purpose to orienting the experts to policy initiatives and priorities for NAAC.

List of the gender sensitive quality indicators for NAAC consideration and action can be used effectively for assessing the overall quality of an institution along with encompassing the gender components.

Audits of the outcomes of specific initiatives for promotion of women's development is given not only for the students but also for the faculty and is necessary to establish equality of opportunity and provide gender justice, and ultimately resulting in optimum utilization of women's resources.

In Curricular Aspects: What are the women-related courses/topics introduced in the curriculum in the various subjects taught?

In Teaching, Learning and Evaluation:

- Gender segregated data on students and faculty in various departments at UG/PG level.
- Participation of women faculty in seminars/ conferences/ workshops/ faculty development programmes/ receiving awards/representation in various committees.

In Research, Consultancy and Extension:

- Percentage of women faculty actively involved in research/ guiding research students/ operating projects/ publishing and extension activities
- What are the specific research topics and extension activities related to women

In Infrastructure and Learning Resource:

- Availability of hostel/common room/ toilet/ sports facilities for women.
- Books and journals on women in the library.

In Student Support and Progression:

- Sex disaggregated data on number of women students getting scholarships/ financial support and the students getting placement.
- Availability of women counselors, sexual harassment cell, lady doctor.

In Organization and Management:

- Number of women in all selection /promotion committees/ academic/ administrative bodies of the institution.
- Details on maternity leave, crèche for children.

Healthy Practices:

- Number of gender sensitization programmes conducted.
- Number of women- related themes and topics taken up for discussion and debates.
- Number of leadership camps organized for the personality development of women students.

Institutions are encouraged to utilise these areas to increase their assessment scores for accreditation and reaccreditation. This indicates an indirect encouragement for gender sensitisation in higher education institutions.

Already there are some institutions have utilised such opportunity. Some of the instances where institutions have used gender sensitization points into their best practices are available.

Rehabilitation of Women Prisoners by Sophia Girls College Ajmer-305001 in Rajasthan. Phone-0415-2427245

With Objectives:

- To make students empathetic towards offenders, particularly women;
- To protect the human rights of women prisoners;

Practices include weekly visits –The college students visited the jail on a weekly basis and engaged in imparting literacy and moral education to the prisoners. These visits helped to build rapport with prisoners and added to their sense of self-worth; and the activity added to the sense of accountability of the prison officials. For the students, it led to awareness of the loopholes available in the criminal justice system. On realizing the sordid plight of women prisoners, the college started to focus on their rehabilitation. Legal intervention– Ninty-ninepercent of women prisoners are from rural background. In association with lawyers, the college offers legal knowledge and intervention for petty offenders who would otherwise languish in prison. Cultural programmes – Students are trained to stage cultural programmes. These provide entertainment and moral education to the inmates. The students are exposed to ground realities in prisons. Counselling – The College offers counselling to women inmates. Rural women are homemakers and are deeply rooted in their home and hearth. Any displacement for whatever reason causes them untold misery and distress, often altering their course of life irreversibly for the worse. Individual, attentive and unbiased listening to each one gives them a new lease of life. Occupational therapy – Music reduces stress levels. The women inmates and constables are trained in playing the harmonium and singing bhajans. Prayer becomes for women prisoners a rich soothing experience rather than a mere ritual. Paper-bag making project - Students of the college procure newspapers, the raw material needed for bag-making, and market the products themselves; the proceeds from the sale of these articles are given to prisoners for purchase of their toilet items. The practice has also had other salutary lateral consequences.

Impact of the The practice: to a great extent, bridged the gap between pure practice academics

and community engagement. The students have developed a spirit of social service and commitment to the community, specially the imprisoned. The teacher looking after this practice was invited by the Director of the Mulla Committee for Prison Reform to be part of a 3 member team to make a study of 'Custodial institutions for women in the state of Madhya Pradesh' and offer recommendations to the National Council for Women. The report was sent to the Chairperson, NCW in April 2005 and is available at www. humanrightsinitiative.org. Resources Resources like newspapers, glue etc. are raised from the local Community without great difficulty.

Details of some more colleges who utilised gender specific areas as part of best practices and added to their total scores for NAAC accredition are given below.

Best Practices of Top (NAAC) Accredited (State-wise) Colleges in India

1	Jyoti Nivas College, Bangalore, Karnataka	Karnataka	Women Cell,
2	S.S. Jain Suboth PG College, Jaipur,	Rajasthan	**Empowering Women**: Laying Foundations for Better Society
3	Miranda House (DU North Campus),	Delhi	**Women as Leaders and Achievers:** Laying Foundation for Successful Lif **Outcome:** great women leaders such as Shaila Dixit, Meera Kumar, Brinda Karat, Romila Thaper, Anita Desai, etc., production of eminent leadership, crowd funding raised, various ventures at international level
4	Patna Women's College, Patna,	Bihar	**Inter College Women's Association (Patna) Outcome:** students of different colleges mix, more active in taking part in activities, increased discussions on social issues, discussions on political representation of women
5	Jamshedpur Women's College, Jamshedpur,	Jharkhand	**Women Empowerment Outcome**: computer literacy increased, made world sports players (Aruna Mishra, Reena Kumari), many national players, increased job profile of students, empowered women

Refering to these we can appreciate and understand the efforts being undertaken in India to improve gender sensitization in educational sector by MHRD through UGC and NAAC as it is one of the most important area which can contribute for improving women empowerment and for overall development .

References

1.www.naac.gov.in:Prof. Jaya Indiresan Formerly Professor at National Institute of Educational Planning and Administration. NIEPA Delhi

2.eric.ed.gov. Forum on Public Policy Online, 2007

3..http://www.unom.ac.in, Academic Staff College, Orientation Course-102, University of Madras, Chennai. Status of Higher Education in India : Recent advances in frontier areas.

4.www.educationforallinindia.com

5.http://www.cppr.in"Understanding the Status of Higher Education in India"

6. PDF Best Practices Series ,3 Community engagement-case presentations. NAAC July 2006, RAF University manual .

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

34.

PLAGIARISM AWARENESS – A STEP TOWARDS QUALITY EDUCATION AND RESEARCH

T. Jayashree Santhoshi[1] and Dr. P. Naga Padma [2]*
[1]Sreenidhi Institute of Science and Technology
[2]Department of Microbiology
Bhavan's Vivekananda College of sciences, Humanities and Commerce, Sainikpuri, Secunderabad-94, Telangana State, India.
*[2]Corresponding Author: naga_padmathota@yahoo.com

ABSTRACT

Plagiarism is perceived by most of the students of various levels as "cut and paste" approach or to "copy other people's work". It has been defined variably by different people and also has been categorized into different types like intentional plagiarism, accidental plagiarism, direct plagiarism, mosaic plagiarism, self-plagiarism etc. Plagiarism also encompasses aspects like purchase of papers from a paper mill, resubmission of one's own original work for different assignments, and use of information from electronic sources without giving any proper attribution to the original source. Study reports indicate that there is variation between high school plagiarism and college-level plagiarism based on types of source content used like social, common content-sharing sites and new sites respectively. It is also evident that students are not only using multiple sources to plagiarize, but are also plagiarizing different forms of media like words, ideas, images and sounds. It is a known fact that plagiarism results in serious consequences, including disciplinary action and so has to be avoided. Understanding plagiarism in totality is the first step to avoiding it. Taking this aspect into consideration the present paper concentrated on giving an overview on different aspects of plagiarism to create awareness among students and researchers. Information regarding availability of online services for plagiarism check has also been dealt with as this could not only create awareness but also give scope for quality education and research. These are gaining both recognition and prominence world over and also especially in India much due to National Assessment and Accreditation Council (NAAC) and National Board of Accreditation (NBA) initiatives.

KEY WORDS: Plagiarism, Types, aspects, online services, education.

Introduction

Plagiarism is ubiquitous in nature, being of very common appearance in all types of paper documents. It involves in its ambit all types of people but still has no universal definition. In consensus it is agreed to be "stealing another person's work and using it as your own without any permission to do so". All available definitions of plagiarism stress the same bottom line: "the act of plagiarism is a moral offense and has to do more with the plagiarist than the original author". "To plagiarize" comes from the Latin word "plagiare" which means, "to kidnap." It is a known fact that here are diverse ways to "kidnap" or steal ideas, whether intentional or unintentional. The definition of plagiarism is variable with different educationists and researchers. The content that encompasses plagiarism slightly varies from one University to the other and so accordingly their plagiarism policies. In the modern world the easy accessibility to immense data gave scope for plagiarism in different forms and so accordingly different types of it have been identified and described. There is practical evidence based on case studies, survey reports that student cheating and plagiarism are becoming very common and more prevalent and this has encouraged the coining of the term 'epidemic cheating' by Alschuler and Blimling (123–126). The reports on plagiarism are from many countries all over the world like the USA (White, A44), the UK (Ashworth & Bannister, 187–203), Southern Africa (Weeks, 24) and Finland (Seppanen, 11).

The present paper is an attempt to educate people about different aspects of plagiarism taking the fact into consideration that understanding plagiarism in totality can be the first and best step to avoiding it. Plagiarism free study material, assignments and research publications will help for establishment of quality in both education and research. The different aspects covered in the paper are: the

definitions or meaning and content of plagiarism, the types of plagiarism, consequences of plagiarism, anti-plagiarism policies of educational institutions and the available online services for plagiarism check. It is concluded finally that the growing universal problem of plagiarism needs development of effective frame works and policies at institutional level mostly starting from school to higher education institutes, with an overall global level monitoring by an apex organization.

Definitions and Content of Plagiarism

Plagiarism was described by Taylor (74- 77) "as the unauthorized use of the language and thoughts of another author and the representation of them as one's own". Cizek (1-168) defined that "Plagiarism is a component of cheating on assignments". The definition was further modified and defined by Renard (38-42) to include cyber plagiarism which encompassed a variety of things like "direct copying of information from online articles, web pages, texts, discussion lists, and paper mills". Royce (26-30) stated that cyber plagiarism included both published and unpublished plagiarism and was a separate type of plagiarism. Smith (22) stated that "cyber plagiarism was the use of the Internet to plagiarize materials".

What constitutes the content of Plagiarism varies among different Universities and this knowledge can give a proper and in depth idea about it. For example, the University of Pittsburgh's undergraduate plagiarism policy lists examples of Plagiarism as:

- Copying text "as is" without quotation marks and with no citation source.
- Reordering the elements of the source text without citation.
- Copying pieces (sentences, key phrases) of the source text without citation.
- Paraphrasing without citation
- Reproducing information that is not common knowledge or self-evident without citation.
- Incorporating an idea heard in conversation without citation.
- Using your own past material or another student's material as a new idea without citation.
- Paying for another to contribute to your work without citation.
- Using software or online translators to translate material without citation.
- Paying someone else to do your work, purchasing material, or translating for someone else's material (web-based or hard copy).

The statement on plagiarism of University of Cambridge gives a different definition like "Plagiarism is defined as submitting as one's own work, irrespective of intent to deceive, that which derives in part or in its entirety from the work of others without due acknowledgement. It is both poor scholarship and a breach of academic integrity". In this university another feature of plagiarism is also included like "Plagiarism might also arise from colluding with another person, including another candidate, other than as permitted for joint project work (i.e. where collaboration is concealed or has been forbidden)".

Types of Plagiarism

Plagiarism is categorized into different types based mostly on the method of copying, its extent and also its consequence in most cases.

Direct Plagiarism

It is described as "the word-for-word transcription of a section of someone else's work without attribution". Such action is considered to be a deliberate action and so is unethical, academically dishonest, and calls for disciplinary actions that could also include expulsion.

Self-Plagiarism

It is described as it occurs "when a student submits his or her own previous work, or mixes parts of previous works, without permission from **all** professors involved". "Self-plagiarism also applies to submitting the same piece of work for assignments in different classes without previous permission from **both** professors".

Mosaic Plagiarism

It is described as "when a student borrows phrases from a source without using quotation marks, or finds synonyms for the author's language while keeping to the same general structure and meaning of the original".

Accidental Plagiarism

The description for this type of plagiarism is as "when a person neglects to cite their sources, or misquotes their sources, or unintentionally paraphrases a source by using similar words, groups

of words, and/or sentence structure without attribution".

***Intentional** Plagiarism*

Its description is as "when a student either knowingly takes credit for someone else's work by copying and pasting content into a paper without attribution or buys a paper written by someone else".

Consequences of Plagiarism

The consequences vary based on the university, the community involved and also the severity of the infraction. These are described with examples to aptly assess the depth of the situation.

In the case of the University of Cambridge text-matching software is used for the purpose of plagiarism check and has the right to subject any candidate's work to test by such a service. The university mentions in "University-wide statement on Plagiarism", all aspects regarding plagiarism in its Statutes and Ordinances 2016. According to this "Failure to conform to the expected standards of scholarship (e.g. by not referencing sources) in examinations or assessed work may affect the mark given to the candidate's work. In addition, suspected cases of the use of unfair means (of which plagiarism is one form) will be investigated and may be brought to one of the University courts or disciplinary panels. The University courts and disciplinary panels have wide powers to discipline those found to have used unfair means in an examination, including depriving such persons of membership of the University, and deprivation of a degree".

Different case studies indicate both the seriousness of the offence and its dire consequences. This aspect is highlighted by few examples mentioned in the following text. Plagiarizing any source is taken as a serious matter like in the example of Chinese researchers. In this case researchers published a plagiarized article in a journal of Korean Medical Science and when they were caught they were banned from further publications in that journal for five years (Hong, 183–185). In another case a U.S. Senator John Walsh had to forcibly withdraw from an election when it was found that he plagiarized his final paper for his master's degree at the United States Army War College. Plagiarism leading to economic loss in seen in the example of biographer Doris Keams Goodwin who was accused of plagiarism. It was stated that in her book titled "The Fitzgeralds and the Kennedys" there was inappropriate citation of the source from a book authored by Lynne McTaggart. There was reduction in book sales of Goodwin by 50% to 60% in the post controversy period (Fialkoff, 70).

There can also be other serious legal consequences in few cases especially in case of copyright infringement. The Copyright laws are considered to be the absolute ones and based on these no one can use another person's material without proper citation and reference. Authors have every right to sue a plagiarist. Copyright infringement, a type of plagiarism is considered a criminal offense which could also lead to imprisonment. The consequence becomes much more severe if it involves writers or journalists and could become a serious ethical and legal issue.

Anti-plagiarism Measures

Plagiarism is a globally growing problem which is not only attracting the attention of students, researchers, educationists but also the media and the government. The measures should be given taking into consideration the reasons for plagiarism as this could give a more practical approach. This could be possible if stress is focused on educating instead of disciplinary action. If in all educational institutions from lower level like schools to higher level like professional colleges academic integrity that involves qualities like honesty, fairness, trust, respect and responsibility is stressed, then automatically plagiarism could be curtailed.

There are some good practical measures suggested based on surveys conducted, interviews and practical experiences with schools and colleges by different people. Willems (28-31), Wilhoit (161), and Laird (56-59) with their interviews and surveys could identify various reasons for student plagiarism. The different reasons were paucity of proper information on appropriate procedures for citation of any information; time bound assignment submission pressures etc.

Taking this aspect into consideration some anti-plagiarism measures were suggested like creation of unique assignments for students so that neither they will copy nor purchase from paper mills (Renard, 38-42).

Another measure suggested by Cizek was to educate students consequences of cheating and plagiarism by incorporating these aspects into school policies and honor codes. Wilhoit (161) suggested another anti-plagiarism measure like teaching of proper note taking skills so that students learn to write on their own. Janowski's (26-28) idea was to involve teachers in educating students on proper citation as an

effective anti-plagiarism measure. This aspect was also stressed by Willems (28-31), who suggested that proper instruction to students on citation also could reduce their confusion further giving less scope for plagiarism.

The publication policies of different journals are slightly variable, and are defined in their respective journal sites. These are mostly the anti-plagiarism measures which are depicted as publication ethics and publication malpractice statement. Some of the journals also stress on an anti-plagiarism declaration from authors, while some others insist upon authors to certify that they are solely responsible for both the work and text in the publication.

Plagiarism has not only promoted diverse anti-plagiarism measures but also lead to the drafting and implementation of Government policies on plagiarism check. All India Council of Technical Education (AICTE) has initiated the use of plagiarism in all technical institutions instructing them to install trustworthy anti-plagiarism software for all academic and research and development (R&D) related activities. Recently University Grants Commission has drafted a new policy to curb the plagiarism menace. The draft policy indicates that, three types of penalties would be imposed on those found guilty of lifting someone else's work. It also indicated that in case of 'Level 1and 2' offences, the researchers would get a chance to revise their work, but in 'Level 3' offence, which is '60% similarities' would result in cancellation of the researcher's registration. Whereas Plagiarism in core areas, necessitates 'zero tolerance'.

Available online services for Plagiarism check

Universal prevalence of plagiarism in this modern world not only prompted diverse Anti-plagiarism measures but also led to development of online services for plagiarism check. These services are available as both free services and paid services. The services have variations in their characters, guide lines for use and also their user group for which they are best applicable.

The different plagiarism checkers are Dupil checker, copyleaks, PaperRater, Plagiarisma, Plagiarism checker, Plagtracker, Turnitin, Safeassign, Plagscan, etc.

Dupil checker offers 50 plagiarism scans per day for free to users who get themselves registered in the website. This being one among the free plagiarism detection tools is the most effective in performing the job and also enables the user to either copy and paste the text in the field or upload a file from desktop for plagiarism check.

Copyleaks and Turnitin are cloud-based softwares in which papers are analyzed with the help of database consisting of web pages, student papers, and academic articles. These tools are especially for different sections in business and education. Copyleaks is available as API tool for use on internet, as well as mobile app. Copyleaks scans content from various file formats and also from different languages.

PlagScan is software that is available for individuals and institutions unlike Safeassign and Turnitin which are only available for institutions. It is a web-based detector which checks against a database of files and documents.

We also have multi-purpose plagiarism tools like PaperRater, Plagiarisma which are used by students, teachers and writers. These tools perform activities like Proofread, Grammar check and vocabulary builder apart from Plagiarism check.

Apart from these, we have completely free plagiarism detection tools with unlimited scans per day per user. They are Plagiarism checker, PlagTracker which are user- friendly providing detailed reports and are solely online. In Plagiarism checker, text is copied and pasted in text box or uploaded as a file from either cloud storage or desktop. PlagTracker supports 6 languages namely, English, French, Spanish, German, Romanian, Italian.

Conclusion

Plagiarism is unethical and so should not be encouraged. Its prevalence worldwide is much due to lack of proper knowledge about what constitutes it and what are the consequences of it. If students and researchers are given proper and total information on all aspects of plagiarism, then it could help avoid plagiarism. With this notion an attempt was made to include all aspects of plagiarism like its definitions, its content, types, consequences of use, anti-plagiarism measures and different online services available for its detection. In conclusion it can be said that the growing universal problem of plagiarism needs development of effective frame works and policies at institutional level mostly starting from school to higher education institutes. There is also a need for effective anti-plagiarism strategy that needs to balance firm disciplinary processes with an effective educational approach. Total avoidance of plagiarism is necessary much to avoid a black mark on ones academic or professional record. Finally it can be concluded with

a note that this global menace needs an overall global level monitoring by an apex organization.

References

Alschuler, AS & Blimling, GS. (1995) Curbing epidemic cheating through systemic change, College Teaching, 43 (4), pp. 123–126.
Anderson MS, Shaw MA, Steneck NH, Konkle E, Kamata T (2013) Research integrity and misconduct in the academic profession. Paulen MB, editor. Higher education: Handbook of theory and research. pp. 217–261.
Ashworth, P., Bannister, P. & Thorne, P. (1997) Guilty in whose eyes? University students' perceptions of cheating and plagiarism in academic work and assessment, Studies in Higher Education, 22 (2), pp. 187–203.
Bretag T (2013) Challenges in Addressing Plagiarism in Education. PLoS Med 10(12): e1001574.
Cizek, G. J. (2003). Detecting and Preventing Classroom Cheating: Promoting Integrity in Assessment. Thousand Oaks, CA: Corwin Press, Inc.
Fialkoff, F. (2002, March 15) Rampant Plagiarism. Library Journal, 127, 70.
Hong, S.-T. (2017). Plagiarism Continues to Affect Scholarly Journals. Journal of Korean Medical Science, 32(2), 183–185
Janowski, A. (2002). Plagiarism: Prevention, not prosecution. The Book Report, 21,26-28.
Laird, E. (2001, November). We all pay for internet plagiarism. The Education Digest, 67, 56-59
Renard, L. (December 1999/January 2000). Cut and Paste 101: Plagiarism and the net. Educational Leadership, 57,38-42.
Royce, J. (2003 April) Has Turnitin.com got it all wrapped up? Teacher Librarian, 30. 26-30
Seppanen, R. (2002) Finns target master plagiarists, Times Higher Education Supplement, 1 February, p. 11.
Smith, c.B. (2003 Summer). Fighting cyber plagiarism. Library Journal Summer 2003 Net Connect 128,22
Taylor, K.R. (2003, April). Cheater, cheater .... Principal Leadership, April 2003, 74- 77.
Weeks, S. (2001) Plagiarism: think before pointing finger of blame, Times Higher Education Supplement, 15 May, p. 24.
White, E. M. (1993) Too many campuses want to sweep student plagiarism under the rug, Chronicle of Higher Education, 24 February, 39 (25), p. A44.
Wilhoit, S. (1994, Fall). Helping students avoid plagiarism College Teaching, 42, 161.
Willems, H. (2003, February). Plagiarism @ your school library. Library Media Connection, 28-31.
https://www.studymode.com
https://www.plagiarism.admin.cam.ac.uk
https://www.scribbr.com/plagiarism/consequences-of-plagiarism/
https://edubirdie.com/plagiarism-checker
https://www.quetext.com/
https://www.plagscan.com/en/
https://www.plagiarism.admin.cam.ac.uk/

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

35.

IMPLEMENTATION OPTIONS OF RESEARCH-ORIENTED TEACHING

A.Sai Padma*, D. Rajani and M. Usha
Assistant Professor, Bhavan's Vivekananda College of Science, Humanities and Commerce, Sainikpuri, Secunderabad.
*Corresponding Author : saipadmabhavans@yahoo.co.in

Abstract

Research-Oriented teaching is a kind of interactive teaching and learning practice. During the process of teaching, teachers try to create a situation and way similar to the scientific research and then guide students to study the issues related to the teaching contents. Students are required to explore, think, practice and absorb knowledge and then apply it to solve the problems actively. They gain new experience and improve their personality characteristics to cultivate their creative ability and innovative spirit.

Elaborative information on various implementation methods to be carried out to attain this task are discussed. The advantages of research oriented teaching are highlighted with the emphasis on student-centered curriculum. The interaction between research and teaching and its advantages to impart knowledge to both teacher and student are highlighted. The existing scenario of our country is a bottleneck for the implementation of this method and this paper discusses these impeding factors and suggests possible solutions. By considering all information provided one will come to a thorough understanding of research-oriented teaching and will be able to affectively implement it in their organizations at under graduate and post graduate level.

Key words: research-oriented teaching, active learning, student-centered curriculum, implementation methods.

Brew[1] brings in the concept of academic community of practice where academic departments, disciplines, sub-specialisms, a university as a whole, or networks of professionals interact through face-to-face settings to disseminate research knowledge. More insights can be gained by introducing research into teaching as a knowledge transfer process. According to Sexton & Barret[2], knowledge transfer is viewed as the movement of knowledge via some channel from one individual to another. The movement of research knowledge from researchers to students is through teaching and other mediums such as seminars, workshops, conferences and project-based work. Jenkins[3] states that knowledge economy demands academics to be creative and gain ability to create, find, and synthesize new knowledge. Scott[4] emphasizes that in a knowledge society research and teaching are no more separable activities and the impact of the knowledge society has been to make research and teaching even more transgressed. Scott[5] states that, "'in a knowledge society all students certainly all graduates have to be researchers. Apart from getting engaged in production of knowledge, they must also be educated to cope with risks and uncertainties generated by the advance of science". As put forward by Healey[6], research-oriented teaching combines two major fields of action of a college or university. "Research" and "Teaching" are to be pursued together and to be combined in practice. Activities typical to research must become integral part of work and constituents of the learning process. Students must be given deep insight into current research being undertaken in their subject as well as into core elements of scientific work.

Keeping in view of the significance of research-oriented teaching, it is essential to understand basically the concept of research-oriented teaching, to look for implementation options of this process at under graduate and post graduate levels. The problems associated with the implementation of this process must be understood and appropriate strategies must be designed to overcome these problems and implement the process effectively.

Discussion:

The central objective of research-oriented teaching is to familiarize the students with current research topics and processes of their discipline. During the early study phases, students should be provided with scientific methods to solve problems and generate results. Eventually, students are to be enabled to autonomously plan, execute, and reflect own research projects. The ways of interlinking research and teaching extend from basic lectures to

familiarize students with the fundamentals of current research topics, processes, and results to active participation in the research work, to work independently on research projects, make final theses and present project seminars. Apart from research-oriented teaching, many universities also practice "research-based learning". These conceptions differ in the extents of active participation of students in research.

Research-oriented teaching includes designing an innovative approach based on current research results and topics. It integrates students with research activities and help students to learn research skills. The activity lies with the teacher rather than with the student. Whereas in research-based learning, students actively go through a complete research process where they autonomously conduct research and learn on the basis of this research activity. It is an innovative approach to help students learn research skills. In this approach, oral presentations of students either individually or in groups on research in a selected scientific topic or process, online or otherwise self-assessment of research skills or training needs should be considered. Research skills training should be incorporated in module. This process of teaching should be introduced early in the curriculum, and lectures should be arranged by active researchers on ideas for career development. A student must be developing an understanding of how to form a research question, to present e-conferences, under-graduate students' research seminars and journals. Postgraduate students can take an active role in facilitating journal planning and editing. To articulate the relevance of research skills, staff and students should develop an enquiring and a critical approach to everything that they do. There should be a relevance of research to their subsequent career and ongoing personal development.

In research-based teaching, opportunities are offered for students to undertake their own research. Major individual projects are taken that are based on research group themes. Student internships are linked to research and students are involved in the existing research projects including them in gathering the data also. Dissertations, projects or independent vacation based projects (extracurricular) are planned. They are encouraged to form their own research questions. Opportunities are provided for students to participate in projects shaped by staff with research interests. Vacation studentships (lab-based) are provided to the students.

Research-tutored teaching includes supporting the undergraduate students' contributions to discipline-wide research issues. There are major individual projects based on research group themes. Students critically analyze research journal papers (to learn publication style methods). Students' posters are displayed on corridors, and student internships are linked to research. There is an involvement of students in existing research projects. This process also involves sharing research news with students, UG research presentations and conferences, 3rd year research presentations to 2nd year students. Opportunities are provided for students to participate in projects shaped by staff research interests. An impact assessment of the student's research on society is also assessed in research-tutored teaching.

In Research-led teaching, there is an integration of research-based knowledge into the curriculum. There is a sharing of research news with students. Research-based knowledge is important in shaping the curriculum offered (e.g. themes and topics taught)

A learner-centered environment can be created through Research- oriented teaching and students learn to work cooperatively & develop effective communication skills. They imbibe multiple views to strengthen knowledge and promote independent and critical thinking. They also develop independent learning strategies & out-of-class learning. Experience of working on a real research projects creates research atmosphere and inculcates lifelong learning skills to the students. Oral and written communication skills are improved. During workshops, they explore learning new techniques and skills for potential career. Building confidence and the ability to work independently are also enhanced.Guest lectures help build a link between academics and the expert, creating a bridge between what the student learns from the text books and from the guest speaker. They also get to see the insight and perspective of the guest speaker's area of research and get motivated. Field trips(research-tutored) deepens and enhances the classroom study, inculcates scientific temper and motivation towards research. The trips integrate the concepts and information from various disciplines and also there is an extension of laboratory experiences. There is a

correlation of real examples with the information discussed in the classroom.

Research-oriented Teaching benefits both student and the teacher. Students develop the intellectual skills of critical analysis & valuable transferable skills like group work, time- and resource management and data handling. Similarly, the teacher is also benefitted by Research-oriented training. Less time is spent on teaching preparation due to a switch of emphasis from teaching content to learning. Research-oriented teaching interlinks the theoretical and practical parts of scientific knowledge acquisition. This helps the students develop specialized know-how and enhance their multidisciplinary competencies. Students develop enhanced curiosity and capability of scrutinizing things. They develop a tendency to asking questions and develop solution options. Students are prepared for a career in science or research by the development of a scientific and reflexive competence.

Although some universities are actively carrying out significant exploration of research-oriented teaching mode reformation and have gained some successful experiences but still most of general colleges and universities in India have not yet begun the reform and practice of research-oriented teaching mode. The bottlenecks in the research-based teaching model reform in the colleges and universities and the possible solutions to overcome these problems are outlined by Xinying Shi[7] and the scenario is almost same in most of countries. The solutions suggested by them may be taken into consideration for better implementation of research oriented teaching at all the colleges and universities level.

Looking into the present day situation there are some problems associated with the implementation of such a system into the curriculum. The reform and innovation of undergraduate teaching is comparatively neglected, so the potential dimension of the research-oriented teaching curriculum reform is limited. Teachers and teaching management in some of the colleges insist on the traditional education. They are not familiar with the research-oriented teaching concept, characteristics and teaching mode, so it is not easy, to some extent, for them to understand this point. They do not want to spare effort in developing and preparing research-oriented teaching courses which employ new teaching methods. Many of the teachers have not yet made clear the research-based teaching ideas and methods, so their teaching contents and teaching means are the same as the traditional courses.

Teachers are required to incorporate the latest academic scientific achievement and trends while guiding students to take part in their research projects and improving students' research experience. There are also some problems of teaching conditions since a Research-oriented course is expected to be provided in a small-class. The most appropriate situation for teachers and students is to sit around a table in a special small classroom. This requires a college to build or transform a number of classrooms, and to equip them with a complete set of multimedia teaching facilities. It is difficult to carry out research-oriented teaching with large number of students in a big class room mode. To popularize small-class research course teaching will no doubt make the limited college teachers and the classroom resources become a more serious problem.

Another critical problem is the quality evaluation for research-oriented teaching courses. The assessment of undergraduate courses is mainly based on the final examination scores. The daily scoring means is rather single, and accounts for low ratio in the student's course grade. In many Universities the student's course grade usually consists of daily score and final exam score, the former accounts for 30%, while the latter for 70%. The daily score is graded by class attendance, papers, and experiment reports and so on, without assessment of investigation and research or project design which can embody a student's research ability. This assessing means only leads to a bad way that students will cram before the final exam rather than research-oriented self-study with creative and research consciousness at daily learning. In order to evaluate a research-oriented teaching course, great reforms of the evaluation system and methods is required. Actions such as thesis writing, research, discussion and social survey, and other forms of cooperation should be taken into consideration.

Evaluators should pay more attention to probe into students' research learning process rather than looking into the result of teaching. The bottle necks mentioned in the process of research-oriented teaching mode reform is the main cause that blocks the development of such a course in many colleges. To promote the implementation of research oriented course, the factors such as faculty, teaching conditions, curriculum system, course contents and teaching methods should be analyzed. To strengthen the construction of teaching conditions for research

oriented courses there should be an implementation of active small-class teaching, a number of small classrooms for about 15 students with a round table is considered suitable. Onthe other hand, providing internet system to students will facilitate them to study independently and communicate with teachers more conveniently. Teachers may upload videos, teaching outlines, teaching plans, courseware, exercise databases, examination databases, teaching reference recourses etc. They can communicate with students through questions and answers online. This can meet the students' demands of research-oriented learning and is a useful way to improve the teaching effect of research-based courses.

To promote the implementation of Research-Oriented teaching, firstly, teachers who are good at teaching and scientific research are to be selected to serve as tutors of research-oriented courses. Appropriate measures should be taken to train them in the system of research-oriented teaching. Secondly, a set of incentive mechanisms should be established such as offering favorable treatment in the assessment of their workload and teaching effect or their professional titles so as to encourage the teaching faculty to carry out the teaching reforms.

For optimization of curriculum design and its proportion of research oriented teaching courses in the project, a set of research-oriented curriculum system should be built which combines the following twains: undergraduate junior seminars with senior research-oriented teaching courses, research-oriented theory courses with practice course, undergraduate scientific research training project and research course, etc. For example, Science clubs can be designed and set up for research oriented teaching courses. These courses are given by selected experienced and, knowledgeable teachers who can aim at inspiring the students' creative thinking.Under graduates' scientific training projects can be created and enterprise the training projects which require teachers and students to cooperate. Teachers promote students' scientific ability by guiding students to review literatures, translate materials, carry out social investigation, do experiments, and analyze databases. This will undoubtedly become a remarkable result of research oriented teaching mode reform. Research-oriented teaching courses focus on training students' scientific research consciousness and academic ability, so it should be considered in the design of research-oriented courses for senior undergraduates that some students prefer to continue their education and do some scientific research, for purpose of effective connection between relevant courses.

The quality evaluation standards should change because the teaching mode of research-based course is different from the traditional teaching mode. Traditional course focuses on the effects of teaching, which is usually by means of summative judgment such as test paper, thesis, homework etc,. Teacher who undertakes a research-oriented course will encourage students to carry out research activities. The teacher will stimulate students to study autonomously, to solve some problems and to discuss them with his team members. Through this kind of training, students will promote their inquiry and create consciousness and spirit. Comparatively, the assessment of a research-oriented course cares more about its teaching process. So, evaluating the teacher's teaching ability and the effect of students' study should focus more on the process.

Students' academic performance and teachers' teaching merit aims at the characteristics of research-based teaching courses. This evaluation system should be flexible, scientific and reasonable. It will achieve this standard with the two-way evaluation between teachers and students.

Taking into consideration of the facts presented, an effective system has been proposed by SepaniSenaratne et al[8] to implement research oriented teaching methodology. They laid down seven principles of research to teaching transfer which is applicable for higher education institutions. If academics are research active, the transfer of research into teaching will happen naturally and informally. According to these seven principles, to make the teaching research informed academics should be research active. There should be effective teaching methods to stimulate the students thinking capabilities. A balance between academic's research and teaching workloads should be maintained so that experienced and research active staff is engaged in teaching across all levels. Universities should create an academic community of practice where as a whole or networks of professionals interact through face-to-face settings to disseminate research knowledge to a wider community. Research into teaching should not be a separate process, and academic departments should maintain and evaluate its success especially student learning followed by such a transfer.

Conclusion:

The output of Research-oriented teaching results in students being prepared for a career in science or

research by the development of a scientific and reflexive competence to act. As students become our collaborators rather than mere recipients of our knowledge, they realize that their opinions are respected and valuable to the faculty. When this happens, students take ownership of the learning process and become more involved in learning, realizing that they have critical stake in that process and control over it. These points have to be considered while implementing the practice.

Instead of visualizing the research results, or the process of finding these results, we should make the students realize how new knowledge is generated, how scientific problems are handled, and how setbacks can be overcome. Students should be allowed for an analysis from various perspectives, and should be encouraged to scrutinize existing constructs and results. A teacher should not determine "right" and "wrong" in advance, but they should permit alternative solution paths. Instead of imparting solid expert knowledge, students should be allowed to develop and test their own ideas and approaches.

Students should be encouraged to present their own research and associated studies, setbacks, and methods applied for enhancement and implementation of research-oriented teaching. There should be interactive discussions of current research results in their respective discipline. They should be allowed to present small exemplary experiments and should be provided with enough time to exchange information on a specific research topic or a certain hypothesis. The students should be given an opportunity to practically get involved in a specific research activity. It is the responsibility of the teacher to support the students by providing advice, appropriate material, and specific theoretical input during their work on the problem or the project.

References:

1. Brew, A. (2003). "Teaching and Research: New relationships and their implications for inquiry-based teaching and learning in higher education." Higher Education Research & Development, 22(1): 3-18.
2. Sexton, M. and P. Barrett, (2004), "The Role of Technology Transfer in Innovation With in Small Construction Firms." Engineering, Construction and Architectural Management, 11(5). pp. 342-348.
3. Jenkins A. and M. Healey. (2005) Institutional Strategies to Link Teaching and Research, York: The Higher Education Academy.
4. Scott, P (2004) Knowledge work in a knowledge society: rethinking the Hinks between university Teaching and research, paper presented to The Higher Education Academy Learning and Teaching Conference 2004.
5. Scott, P (2007) Reshaping teaching and research, SREE Annual Conference. Brighton.
6. Mick Healey (2005) linking research and teaching: exploring disciplinary spaces and the role of enquiry based learning., In Barnette, R (ed) Reshaping the University: New relationships between research, scholarship and teaching. Mc Graw Hill/ Open University, pp.67-78.
7. Xinying Shi, ZhaomingXue, and Hong Zhang (2015) A Study on the Research Oriented Teaching Courses Reform in Chinese Colleges and Universities: International Journal of Information and Education Technology, Vol. 5, No. 4.
8. SepaniSenaratne, Mike Kapoglou, DilanthiAmarutunga David Baldry, GhassanAouad, Andy Bowden, (2005) "Research knowledge transfer into teaching in the built environment". Engineering, Construction and Architectural Management. Vol. 12 Iss:6, pp.587-600

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

36.

TRENDS AND CHALLENGES OF MANAGEMENT EDUCATION IN MBA COLLEGES & B – SCHOOLS

M. Bhargavi,
Lecturer, David Memorial Group of Institutions, Tarnaka
Email:bmullapudi1@gmail.com
Contact: - +91 7396315468

Abstract

With the rapid trend of globalization and technological changes in the present era, it is being difficult for organizations to survive in the competitive scenario and looking out for various areas of sustenance by expanding its services of the product and quality over it's competitor which can happen only when the leader is also a strategist and as a result the importance of management education is being increased to many folds to provide strategic Managers and leaders. The management education isplaying a vital role in the upliftand triggering of the social entrepreneurial spirit in a society. The business schools arefacing several obstacles in terms of providing the utmost quality education to the students. The External environmental forces and stakeholders strive out put a constant pressure on the business schools to adapt the changes happening in the business world. Business professionalsrequire to keep updating their skills due to sudden dynamic changes in the external environment. In order to meet up to the challenges of the future, the reform of the higher education is reasonably unavoidable. The Educational Institutions need to strive hard to maintain a balance between the academic cost, infrastructure and the quality . One of the main criticisms of Management and B-schools is the gap between theory and practice.

Keywords: Management Education, Corporates, Challenges, Criticisms, B-schools.

Introduction:

Management education is considered as an elite education among young men and women in India as it attracts them, those who are usually uplifted by the positive consequences correlated with the management education. In our country, the higher education especially in the stream of management is witnessing anintegrating growth in terms of number of institutes imparting management education which are often termed as business school or B Schools. Theeducation in management plays an essential role in today's dynamic business environment. The breakneck trend of globalization andchanges in technology have made difficult for organizations to survive in the competitive world. As a result the significance of management education has been increased many folds. Business executives are necessitated to update their skills due to sudden changes in the external environment. Due to the increasingly complexity in nature of organization structure and businesses, there is a specific need the business schools impart associable, current, and leading edge knowledge to the students.

Importance of Management Education:

Management education gives a value addition to the existing qualification of the student asit helps the students irrespective of their subject of study in graduation as it widens their knowledge and encourages them to think uniquely. Management education upgrades the managerial and leadership skills by sharing of ideologies, insights throughmeaningful andhealthy case study discussions. It helps in imparting the executives with competencies and capabilities to take on the corporate challenges with confidence. In recent times, we find there is growing demand for the programs in the arena of strategy and leadership development in management education.

TheContemporaryDimensions ofManagement Education:

The Inception of new dimensions has already begun. Organizations are feeling the urge for international standards to yardstick the human resources, and academicians are encouraging the deployment of merit-based candidate selection processes. India's position as a spearhead contributor to the global IT HR requirement pool will need to be supported by the adaptation of international standards for talent acquisition. Keeping in view the demands of changing time, the prospects of Commerce as a stream of Education and Profession seems very futuristic. To avail the precedence of this requirement, a lot of people have unlocked educational institutions to educate students in the field of Commerce and Management.

New trends & issues in business and management education

New Trendsof B-schools

The B-schools aremostly focusing on the bottom line of general organization management and also about specificspecializations so that the students can become a bench jockey of all trades and a master of management. The Business schools in the Indian context arereinventing themselves with changing scenarios and redesigning their structure of academic curriculum for overcoming the current challenges in the ever changing business environment.

New TrendsIn Recruitment of Faculties:

The faculties are being recruited by their excellent academic background along with their industry exposure. The recruitment is mostly being made for a special breed of people driven by passion for teaching rather than making money, who voluntarily inspire and motivate the students through their experiences and right communication skills.

Reconstitution of the Corporate Sector

The corporate sector comprises of a major dominant part of the industry. The reforms in financial sector reforms along with the development of the capital market are changing the structure of corporate financing.Corporate governance pertained and deals with the ways of governing the corporations so as to improve their financial performance.

The Major Challenges And Drawbacks In Management Education

Challenges Faced by Management Education

1. The presentacademic curriculum in the stream of management education is not teaching students to face the challenges of ever changing business environment.
2. Managing of uncertain and complex situations are not being taught in business schools.
3. B Schools merely teaches the exceptional concepts with age old case studies.
4. B schools are not focusing on the challenges regenerating out of the rapidly growing dynamic technology changes and the challenges involved in functioning of an organization.
5. Unfortunately, the best talent is migrating to variousindustries where salaries are highly lucrative and leaving behind the teaching profession.
6. The one's who come to the academic area are the ones who could not be get along in the industry or the corporate work Culture or else those who come into this profession by chance or luck mostly.

Drawbacks Faced by Management Education

1. The Insufficient availability of expertise and qualified teaching faculty.
2. Lack of Industry based specializations during the term of academics.
3. Sub standardized infrastructure.
4. Overloading the students with heavy subjects which make no point in the industry.
5. Lack of the required guidance to the students.
6. Deficient of updated and industry based syllabi.
7. Lack of admissions in the area of Management Research.
8. Devoid of Inter-disciplinary approach.
9. Insufficiency of specified authorities for the quality research studies in the field of management.
10. Deficiency of Grants and funds for research.

Overcoming theChallenges in Management Education:

Re-engineering of management education must be done.

Provide decent and sufficient salaries and professional ambience and infrastructure to the faculties.

Facilitate regular training sessionsfor the faculties toupgrade their skills and abilities.

Develop the right kind of positive mindset and attitude tofocus on quality of education not quantity of students or profits earned.

Organize interactive sessions for the students rather than just preaching out what is mentioned in the syllabus books

The project work should be contextual, relevant and should focus on the current scenarios.

The Professional degree is meant to train and groom the students to mould into a true professionals to take on the challenges which are being faced in the business environment.

Should make the accreditation mandatory so as to ensure quality of education.

Take necessitating action against the illegal and unauthorized management colleges.

There should be a major drive for the use online courses and other e-learning methods by manifold timesto provide training opportunities for the staff.

Conclusion

A failure in management education is evident in the presentacademicsscenario. The educational institutions arefailing to forecast the uncertainty and check the dynamically changing status of the economy. The four major pillars of effective management education are industrial exposure,consultancy approach , research studies

and teaching experience. When the faculties of the management education possess these four arenas of expertise, then it can be ensured that qualitative management education is provided to the upcoming professionals.The current business education is sporadic and needs to be reinvented with changing scenarios and times. There is a strong need to focus management education globally, When the syllabus content is customized and based upon the market needs only then the students will not face any unemployability problem. It is vital to have an overall and integrated content of education syllabus with theoretical learning and practical exposure. Let us make are management students more creative and innovative through preparation of curriculum and methodology of teaching that invokes these vital qualities.

References:

1. http://en.wikipedia.org/wiki/Management
2. http:/iamee.edu.in/…/management-education…
3. http:/oppapers.com/essays/…/904061
4. http:/oppapers.com/essays/…/394570

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

37.

INFORMATION AND COMMUNICATION TECHNOLOGY IN QUALITY EDUCATION

Aamena Zeba
Assistant Professor
Academy of management Studies
Hyderabad - 500086
aamenazeba@gmail.com
9985540130

ABSTRACT

Technology has brought in major changes in the way education is imparted. Teaching and learning process has evolved from being a one-sided activity to an active process involving exchange of ideas. Indulgence of various creative tools and techniques has made the process a collaborative initiative.

In the era of digitization, technology and knowledge have taken center stage in national and international debates. At the same time, the Information and Communication Technology (ICT) has become an integral part of nearly all sectors and segments especially linked to the education landscape. Be it teaching, learning and assessment, Information and Communication Technology is crafting the role of future education in India.

Nowadays the role of Information and Communication Technology (ICT), *especially internet* in the education sector plays an important role, especially in the process of empowering the technology into the educational activities.

Being aware of the significant role of ICT (internet) in our life, especially in the educational activities, education authorities should be wise enough in implementing the strategies to empower ICT in supporting the teaching and learning process in the classroom. ICT is not just the bloom of the educational activities, but also it will be the secondary option to improve the effective and meaningful educational process.

This paper is a mere attempt to present a glimpse of meaning of ICT, its importance & its mandatory need for education.

Keywords: Technology, Information and Communication Technology, Education, Knowledge, Digitization.

INTRODUCTION

"Information and Communication Technology" is the abbreviation of ICT. ICT is also known as Information Technology (IT) but with a slight difference. ICT provides access to information through telecommunications through different technologies. It concentrates mainly on communication technologies like internet, wireless networks, cell phones and other mediums. (Christensson)

Since Education sector has upgraded its process by inculcating the technology, it is said to be the most effective sector to forecast or anticipate and eliminate the negative impact of ICT. Technology (internet) in another side can be the most effective way to increase the student's knowledge.to the fact that ICT plays a very important role in our lives, especially in educational sector. So, proper implementation of strategies to empower ICT in Education, is very necessary. ICT is not just the bloom of the educational activities, but also it will be the secondary option to improve the effective and meaningful educational process. (Meenakshi, 4)

The focus of quality education is on the whole childregardless of gender, race, ethnicity, socioeconomic status, or geographic location. The different areas are:—the social, emotional, mental, physical, and cognitive development of each student. Through Quality Education children are prepared for their life rather than only concentrating on academics or career. The 3 pillars which support Quality Education are: ensuring that quality Teachers are provided, providing good quality of learning tools, and providing Quality environment for learning, which is safe, sound and comfortable. (Sean Slade)

Information and communication technology (ICT) has created a great impact on everybody's life. The impact of ICT across the past two or three decades has been enormous. When compared fields as medicine, tourism, travel, business, law, banking, engineering and architecture. The way these fields operate today is vastly different from the ways they operated in the past. (Soloway, Pryor, 16-18)

Information and Communication Technology (ICT) are both a necessity and an opportunity for education. ICT in Education can contribute to universal access to education, equity in education, delivery of quality learning and teaching, teachers' professional development and more efficient education management, governance and administration

NEED AND IMPORTANCE OF ICT IN EDUCATION

"Smart technology" is the familiar terminology that is widely being used in every being's life. Smartphones, tablets, gadgets, smart televisions, etc., are the products of smart technology that have made human life smarter, easier and accessible. Smart technology has not only enhanced the way of living but also became an integrated part of everyone's life. The Information and Communication technology to be precise has become a driving force behind economic growth and a developmental tool as well. (*Ajay Suri)*

ICT is an extended term for Information technology which is a technological source to make information available at the right time, right place in the right form to the right user. Earlier, one had to wait for the newspapers to get the information across the world. Now with the smarter technology, information can be accessed from anywhere using smartphones and gadgets. All this is made possible with the help of Information and Communication Technology. Information technology has been influencing our lives in the recent years in the fields of education, healthcare, and business. Going an extra mile, Information and communication technology in schools has had a major impact.

ICT increases the flexibility of delivery of education so that learners can access knowledge anytime and from anywhere. These processes are now driven by learners and not by teachers. Hence it can influence the students by developing High end teaching aids. This in turn would better prepare the learners for lifelong learning as well as to improve the quality of learning. (Moore &Kearsley).

In today's world students are capable to undertake Education anywhere, anytime and at anyplace. ICT has created a great impact in the field of education, but one the most important contribution of ICT is Accessibility i.e Easy access to Learning. Students can now browse through e-books, sample examination papers, previous year papers etc. and can also have an easy access to resource persons, mentors, experts, researchers, professionals, and peers-all over the world. This Easy access and flexibility has improvised the availability of just-in-time learning and learners who previously were constrained by other commitments are provided with many learning opportunities. (Young, 38).

Extensive availability of best practices and best course material in education, which can be shared by means of ICT, can encourages better teaching. With the help of ICTthe academic institutions are able to reach disadvantaged groups and new international educational markets. As students are open towards learning at any time, this in turn has also encouraged the teachers towards teaching at any time. 24x7 access of Mobile technologies and innumerable communication technologies support teaching and learning. ICT has created a positive impact on both Teachers as well as the Students.(Young, 31-33).

Thus, ICT enabled education will ultimately lead to the positive changes in the field of education.

ICT ENABLED EDUCATION: AN OVERVIEW

Bhattacharya and Sharma in their article titled "India in the knowledge economy – an electronic paradigm" has defined ICT as broad term whichincludes any communication device or applications like radio, television, cell phones, computer, and network, hardware and software, satellite systems and so on, and also services associated with these devices like videoconferencing, tutorials and distance learning. (543).

When such technologies are used for educational purposes, namely to support and improve the learning of students and to develop learning environments, ICT can be considered as a subfield of Educational Technology. ICTs in higher education are being used for preparing study material; delivering content and sharing content through email, interaction between learners, teachers and the outside world; preparing and presenting lectures; academic research; administrative support, student enrolment etc.

Bhattacharya and Sharma, has observed that In the present Tech Savvy world or information society, people have to access knowledge via ICT to keep pace with the latest developments. In such a scenario, education, which always plays a critical role in any economic and social growth of a country, becomes even more important. (543).

Education not only increases the productive skills of the individual but also his/her earning power. It

gives them a sense of wellbeing as well as capacity to absorb new ideas, increases their social interaction, gives access to improved health and provides several more intangible benefits.

ROLE OF ICT IN HIGHER EDUCATION

1. To increase variety of educational services & medium.
2. To promote equal opportunities to obtain education & information.
3. To develop a system of collecting & disseminating educational information.
4. To promote technology literacy.

a. To support "Distance Learning".

b. To support sharing experience & information with others. (Desai, 2)

Table 1. Benefits of ICT in education to the main stakeholders

Stakeholder	Benefits
Students	• Increased access, • Flexibility of content and delivery, • Combination of work and education, • Learner-centred approach, • Higher-quality of education and new-ways of interaction.
Employers	• High quality, cost effective professional development in the workplace, • Upgrading of employee skills, increased productivity, • Developing of a new learning culture, • Sharing of costs and of training time with the employees, • Increased portability of training.
Governments	• Increase the capacity and cost effectiveness of education and training systems, • To provide training and ICT enabled education to groups with limited access to educational facilities.To reinforce and improve the quality and relevance of existing educational structures, • To make sure that there is a proper match between educational institutions and curricula to the emerging networks and information resources, • To promote innovation and opportunities for lifelong learning.

Source: UNESCO, 2002.

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) IN EDUCATION

1. Modern developments in information and communication technologies (ICT) enhances the quality of education. Interactive education software, open access digital libraries, and cheaper and more intuitive technology may facilitate new forms of interaction between students, teachers, education employees and the community and enhance the quality of education by making it more accessible.

2. Education may be enhanced by integrating ICT enabled technologies into traditional educational practices.

3. ICT has the capability to facilitate communications within education institutions and between educators and learners but it must be used in education institutions under the strict vigilance of qualified and well-trained professionals with experience in pedagogy and in education to ensure that its impact does not damage or undermine the learning process or the development of learners.

4. Education unions should Support the use of ICT to provide quality education for all. They should encourage to use ICT in education as a key modern aid to teaching and learning;

- Promote free access of ICT services for all teachers and learners, professionals and administrators in education,
- Recapitulate that ICT in education is appropriate to the learning requirements in the curriculum in each subject, is supportive of the work of teachers and learners, and of administrative and professional staff in education;
- To inform that the educators are consulted about the introduction of ICT into education

institutions and are also involved in the design and development of appropriate ICT for education purposes;

5. Governments and national education authorities should

- Development and promotion of national plans for the use of ICT in education with prior consultation with education unions and education community interests and others with relevant expertise;
- Allocation of funds to develop appropriate ICT for schools and education institutions and ensure that the outcome of such development work is available freely to all;
- Provision of funds to provide continuous professional development in the use of ICT for teachers and other education professionals;
- ensure that high quality internet access is available to all schools and education institutions.(Brazil, Vergara, Abrahan)

CONCLUSION

The usage of information and communication technologies (ICTs) has brought changes to teaching and learning at all levels of higher education systems (HES) by improving quality in teaching and also in learning. Conventional form of teaching and learning are increasingly being converted to online and virtual environments. There are endless possibilities with the integration of ICT in the education system. The use of ICT in education not only improves classroom teaching learning process, but also provides the facility of e-learning. ICT has enhanced distance learning. The teaching community is able to reach remote areas and learners are able to access qualitative learning environment from anywhere and at any time. It is important that teachers or trainers should be made to adopt technology in their teaching styles to provide pedagogical and educational gains to the learners. Successful implementation of ICT to lead change is more about influencing and empowering teachers and supporting them in their engagement with students in learning rather than acquiring computer skills and obtaining software and equipment.

BIBLIOGRAPHY

1. Bhattacharya, I. & Sharma, K. "India in the knowledge economy – an electronic paradigm", *International Journal of Educational Management* Vol. 21 No. 6, (2017): pp. 543–568. Print
2. Christensson, Per. "ICT Definition." *TechTerms*. Sharpened Productions, 04 January 2010. Web. 09 April 2018. <https://techterms.com/definition/ict>.
3. Desai, Swati. "Role of information communication technologies in education". Proceedings of the 4th National Conference; *INDIACom-2010 Computing For Nation Development*, February 25 – 26, 2010. www.bvicam.ac.in. Web. 10 April 2018.
4. Janica Brazil, Aleksey vergara, and AraAbrahan."all-about-ict-information-an-communication-technologies" Web blog post.**https://alekseyizzle.wordpress.com/.* Wanderlust, 2 March 2017. Web. 10April 2018.
5. Meenakshi. "Importance of ICT in Education". *IOSR Journal of Research & Method in Education (IOSR-JRME)* Volume 1. Issue 4 (May. –Jun. 2013): PP 03-08. http://www.iosrjournals.org/. Web. 8 April 2018.
6. Moore, M. &Kearsley, G. (1996). Distance Education: A Systems View. Belmont, CA: Wadsworth.
7. Slade, Sean. "What Do We Mean by a Quality Education?." Web blog post * *huffingtonpost.com,* Economic Time, 22 Feb. 2017. Web. 7 Mar. 2018
8. (Soloway, E. & Pryor, A. (1996). The next generation in human-computer interaction. Communications of the ACM, 39(4), 16-18)
9. Suri, Ajay. "need-importance-ict-education" Web blog post.* *www.myclassboard.com.* My classboard, 28 Dec. 2016. Web. 7 April 2018.
10. Young, J. "The 24-hour professor". *The Chronicle of Higher Education* Vol. 48, (2002): Pp; 31-33. Print.
11. (UNESCO (2002). Open and Distance Learning Trends, Policy and Strategy Considerations, UNESCO.)

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

38.

PERSPECTIVES OF ICT IN TEACHING AND LEARNING

Dr.B.Indira,
Associate Professor,
Kasturba Gandhi and Degree College for Women,West marredpally,Secunderabad.

Prof.S.Jeelani
Director,
Centre for Distance and Virtual learning,
University of Hyderabad, Golden Threshold Building,Abids, Hyderabad.

Abstract:

ICT is a powerful and widespread tool and strategy aimed to use the emerging technologies in teaching and learning process. Use of technology is the key element and driving force to enhance the quality of education system in present scenario. ICT, apart from upgrading the quality of education system, can mitigate the shortage of qualified teachers. NAAC launched revised Assessment and Accreditation framework in July 2017. It represents an explicit paradigm shift making it ICT enabled, objective, transparent, scalable and robust. Revised guidelines are a step towards extensive use of ICT, confirming scalability and robustness. ICTs are used for increasing motivation and offer a possibility for learning new skills and competences. ICT has transformed the traditional way of teaching and learning into a flexible teaching and learning method. It eliminates the geographical barriers, time and other constraints and promotes lifelong learning.As per the recommendations of the National Knowledge Commission (NKC), India should have 1500 universities. However, at present there are only 818 universities which is just half of the number recommended by NKC. The central funding on education is less than 1% of our Gross Domestic Product (GDP). According to given FICCI report, India should need an additional capacity of extract 25 million new seats to achieve 30% Gross Enrolment Ratio (GER) and this will require extra amount from the Government up to the tune of 10 lakh crores by 2020. At present the budgetary allocation for education fund would be insufficient to meet the additional requirement of universities system. Therefore a strong need of Information Communication and Technology (ICT) based learning and teaching not only to provide quality education but also to make the challenge of 30% GER in the country. This paper examine the various issues related to ICT based teaching and learning, outline the benefits and provide suggestions to address the challenges in using ICT for teaching and learning purposes, finally focusing on ICT enabled accreditation process.

Key words: ICT (Information and Communication Technologies), NAAC (National Assessment and Accreditation Council), Quality, Education, GDP, NKC, GER

Introduction

Information and Communication Technologies (ICT) is an emerging field that plays an important and crucial role in augmenting the facilities in teaching and learning process. ICT provides an opportunity for enhancing quality of education system by providing an increasing access to technology and knowledge. ICTs are a different set of technological tools and resources to create, distribute, store, bring value addition and manage information [1]. The development in ICT can be seen and traced in a wide variety of forms like land and mobile telephone, multimedia, radio, cable TV, computers, Internet, wireless technology, optical fibers and satellite connectivity and so on. Wide variety of ICTs are now available to address the various service needs of communities across different sectors. There is a rapid global economic movement through the use of ICT in various segments of the country. The advancements in ICT and its usage have amply demonstrated the immense potential and opportunities to the people and those who govern them to utilize it in their ever increasing quest and pursuit for socio-economic and cultural development in a better, more meaningful and sophisticated manner.

Education is considered to be the driving force for economic and social development in any country. In this context, it is necessary and important to find out various means to make good quality education easily accessible and affordable to all, in a cost effective and convenient manner, using the latest technology and varied online resources that are available. Information and Communication Technologies (ICTs) encompasses a diverse set of technological tools and resources that are used to communicate, create, distribute, store and manage a huge amount of information related to each and every aspect of life.

Around the globe, currently, there is a growing tendency to use ICT in teaching and learning process. The last two decades have witnessed a revolution caused mainly by the rapid and fast development of information and Communication Technology (ICT). ICT has changed the very dynamics of the various industries simultaneously influencing the way people interact with each other and work in the society. Internet usage at home and work place has grown exponentially by many folds. ICT has the built in and inherent potential to remove the barriers that are causing the problems of low and poor rate of education in any country. It can be used as powerful tool to overcome the issues of cost, less number of teachers, and lowquality of education apart from overcoming the time and distance problems.

India has a billion-plus population of which a high proportion is youth and hence it has a large potential for formal educational system. The demand and need for education in developing countries like India has increased like anything,since education is considered as an important bridge to foster social, economic and political mobility of its people.

There are many different kinds of ICT products that are available in the market having relevance to education are teleconferencing, email, audio conferencing, television lessons, radio broadcasts. Interactive radio counselling, interactive voice response system, audio cassettes and CD ROMs, MOOCS, You tube, TED talks, etc. These have been used in education for different purposes. In this context, an attempt is being made to examine the various issues related to ICT base teaching and learning, outline the benefits of and provide suggestions to address the challenges in using ICT for teaching and learning purposes.

ICT in teaching and learning process

Information and communication technologies are considered to be a vital factor in achieving sustainable development of education. Education for the emerging societies requires ICTs to facilitate large-scale learning needs for social and economic development. Information and communication tools deal with the creating, acquiring, sharing, delivery, support, and recognition of knowledge. ICTs are hence the means to provide an access to all stakeholders and engage them in the continuous learning that becomes necessary for successful participation in the societal development. ICTs have thus become a critical tool for any professional training aimed specifically towards the cause for accomplishing an advancement in a specific segment. Technology today plays a crucial role in modernising global education system. Across the globe, Mobile devices like Mobile Phones, PDAs and Tablet PCs are found to be emerging as a powerful pedagogical innovation in teaching and learning process. These devices aid in effectively delivering the multimedia based educational content and also facilitates the easy interaction among teachers and learners for sharing of information with in no time in a collaborative experience.

The evolution of ICT has a profound effect on teaching and learning process. Most of the developed and developing countries use ICT tools almost in each and every activity. Advanced technology and communication tools greatly enhance the process of teaching and learning, provided the teachers are equipped to use them properly. ICT is useful for teachers by providing effective teaching in a versatile, flexible and convenient way. These tools provide a customized learning environment to each and every user. The knowledge revolution has a major impact on learning and teaching.This impact of the ICT on learning can be approached in different ways. Various types can be contemplated: computer assisted learning, web-learning, computer-classes, online training, distance education, eLearning, virtual learning, digital training, mobile learning, u learning etc.

Some of the main driving forces for improved learning environment are derived from the introduction of new Information and Communication Technology (ICT) tools, which are under intense development. New methods forenhanced communication, collaboration and knowledge transfer, MOOCs (Massive Open Online Courses), Moodle (Modular object oriented dynamic learning environment), Ubiquitous and wearablecomputing for seamless and everywhere accessibility to computer resources, Creation of userenvironmentswith multimodal Human Computer Interaction (HCI), Increased possibilities for lifelong and continuous learning,independent of time and physical space constraintsand possibilities to adapt and/or develop new pedagogical and learning methodswith respect to learning material, learning modes.

Benefits of using ICT in teaching and learning

There are many distinct advantages of ICT in education including increased access, flexibility of content and delivery, improve the transparency and responsiveness, provide quick guidance, more interactive, explorative, simple, clear and easy to understand, higher quality of education and new ways of interaction, offer the opportunity for more student centered teaching, provide greater opportunity for teachers and students to communicate and collaborate, give greater exposure to vocational and other workforce skills for learners, provide an easy approach to learn latest and multiple technologies delivered by teachers, create greater enthusiasm and interest for learning, provide latest and new sources of information and knowledge, prepare students to face the real world challenges, provide the learners with open online educational portals where they can learn and also evaluate their knowledge, provide learners with additional resources to assist resource-based learning, development of a new learning and increased portability of training.

Our country is also using the most powerful combination of ICTs such as free andopen software, communication and satellite technologies, native language interfaces, easy to use, clear and simple graphical user interfaces, digital libraries, etc. with long term plan to reach most of the remote villages. Community service centre have been started to promote online learning all over India.

ICTs have the built-in potential to innovate, accelerate, enrich and inspire students in participating active learning. A good deal of research across the globe has proven the advantages offered by ICT based learning. In order to achieve the goal of universal primary education, as stated by Kofi Anan [2], the former United Nations Secretary General, we must ensure ICTs unlock the doors of our education system. ICTs provide greater opportunity for students and teachers to adjust learning and teaching to individual needs. In order to promote increased learner engagement and to make learning more relevant ICTs can be integrated into education.

Suggestions to address the challenges in using ICT

There are many challenges in using ICT for teaching and learning process. The most important factors impeding the access to ICT are lack of infrastructure, poverty, lack of computer literacy and language barriers etc. The employment of ICT is dependent on many social factors including education, geographic location, mobility and social class. Availability of infrastructure, electricity and transport may also influence the use of ICT. Using ICT requires training, education and affordable access to the technology. Access to and use of Internet has important economic, educational and social benefits. The impact of IT on society has not been uniformly beneficial and the technological divide or digital divide is being increasingly felt. Most of the people are not aware of the benefits of using ICT and language is also main obstacle to the use of ICT for non-native speakers of English. One of the main barrier in using ICT is the limited or absence of native and community related content in local languages.

As the technology in ICT sector changes rapidly, there is an increased demand for more advanced skills i.e., there is a need for continuous up gradation of skills. One of the strategy adopted to increase the access to ICT in rural areas is by the development of public access centers like telecenters, libraries, internet centers, kiosks, cyber cafes etc., providing improved access to ICT and training them to use ICT. Successful technologies must be scaled up to reach more number of people through affordable and feasible channels. Relevant tools and information must be provided to address the needs and demands of teachers and learners. Multimedia content must be developed to provide information by both spoken and written means in local, national and international languages to help physically challenged people. Make sure that all stakeholders are involved in designing and developing the latest technologies. Many types of telecommunications like TV and radio broad casting, PCs, Internet and e-mail services must be used share and disseminate information/knowledge. Traditional methods of teaching must be supported by ICT usage. Teachers must encourage the students for using ICT and must play the role of facilitator. MHRD has to work hard to increase the awareness on availability and application of various e-resources and digitization of higher education upgrades in user-friendly manner. Drives to increase ICT literacy awareness has to be undertaken with active participation of public [3]. ICT should be made mandatory in all activities of schools and colleges including teaching, learning, admission, and examination and evaluation process.

NAAC revised Accreditation Process:

The quality of education provided in many Higher Educational Institutes is a matter of great concern. Among the 140 universities accredited by NAAC, only 32% are rated as "A" grade. Out of 2780 colleges accredited by NAAC only 9% are rated as "A" grade. It is noted that, among all accredited institutions, 68% of universities and 91% of colleges are rated average or below average as per NAAC specified quality parameters [4].

NAAC released the Revised Assessment and Accreditation Framework in July 2017, making the entire process ICT enabled, objective, transparent, scalable and robust, which is advantageous to both NAAC and the institution to be accredited and all the documents can be submitted online only, there is no need of sending hard copies.

NAAC described a three levels ICT enabled accreditation processes, with Student Satisfaction Survey and Data Verification and Validation [5]. This process is ICT enabled means, most of the process will be online only, except the fine one day onsite review. In future even this visit may also be replaced with virtual tour and video conferencing.In level one,the institution has to submit the Institutional Information for Quality Assessment (IIQA). Once this IIQA is accepted, institutions can submit their data online in the formats provided for Self Study Report (SSR). At level two, data submitted in the SSR will be subjected to an online assessment process with Data Validation and Verification (DVV). Institutions having secured 30% on the quantitative metrics are eligible foronsite peer review in level three.

Conclusion

The demand for access to higher education has increased with the rise in living standards and the trend towards a knowledge based society. At the same time rapid developments in information and communication technologies (ICT) have created innovative opportunities to enhance the reach and quality of education.ICTs are known to be playing a vital role in all aspects of life. The role of ICT in education is becoming more and more important and this importance will continue to grow and is bound to expand in our country as with any other country. Therefore, integration of ICT in education can vastly improve the quality, efficiency and effectiveness of education at all levels and is expandable to many numbers of users desirous of seeking knowledge at ease and convenience. If the ICT based learning and teaching is implemented with clear cut guidelines and with quality standards in Indian Higher education system, the country can meet the required GER of 30% by the end of 2020

.

References

[1]. Suman Jain "ICT and Women Empowerment – Some Case Studies from India" Delhi University.

[2]. www.un.org/millenniumgoals

[3]. Dr.GirishKousadikar "Role of ICT in Higher Education", New Man International Journal of Multidisciplinary studies", pp 85-87, ISSN 2348-1390.

[4].mhrd.gov.in/nep2016

[5]www.naac.gov.in/docs/RevisedAccreditationFrameworkJuly2017.pdf

[6]www.ficci-hes.com/

❑❑❑

New Man International Journal of Multidisciplinary Studies
(UGC Approved Journal No. 45886)
ISSN: 2348-1390
Impact Factor: 4.321 (IIJIF)

39.

EVALUATION OF PERFORMANCE OF THE COLLEGE PRINCIPALS: AN SKIPPED POINT BY UGC AND NAAC

Prin. Dr R T Bedre
SPPM Sirsala, Beed MS 431128
Mob. 09422544305
Email. prb_bedre@rediffmail.com

Abstract

The new framework of NAAC brings more objectivity in its assessment and accreditation process in order to avoid certain ambiguities and malpractices that were likely to enter in the course of time. It involves the active participation of all the stakeholders of higher education i.e., management, principal, teachers, society, government, alumni and more students. A & A process takes into consideration the performance of teachers, students and alumni in terms of research, merit and attachment; however, it does not evaluate the performance of principals. The present paper highlights the lacuna in the PBAS –API method and suggests a modest format for the same as it directly affects the performance of the principals and thereby quality of the colleges in assessment and accreditation.

Key words: A&A, PPI, KPI,HEI, NAAC, UGC, PBAS-API,

Full-length paper

The higher education sector in India has been being evolved as an industry. It is likely to become a commodity where society and students are the customers and HEI is the service provider. The payer should receive what s/he pays for. It has compelled the governments as the key protector and monitor of the system to see that quality is maintained in the higher education sector as it transforms the human energy into human resource. NAAC and likes of it have been the result of this approach of the government. It evaluates the performance of the HEIs with its prefixed parameters and grades them accordingly for the better convenience and choice for the learners. In the course of time, NAAC has made a good number of revisions in its functioning and parameters. The present new framework is one such. It is well proven fact that time bound pay revisions of the employees in the HEIs are made in tune with the requirement of quality enhancement. The PBAS-API is one such appraisal method for the teachers, librarians and directors of the physical education at the various stages of promotions under career advancement scheme. However, the evaluation of the performance of the captain of the HEIs has escaped the attention of the policy makers in HE in India. The present paper attempts to suggest one such system and parameters to judge the performance of the college principals.

Introduction

The firth pay commission for the university and college academic staff had the self-appraisal system for the fresh /direct appointments and promotions under Career Advancement Scheme (CAS). This self-appraisal system did not have the method of assessing the performance of the academic staff in terms of numerical marking, it only considered the stipulated span of service and participation in the training programmes like Orientation Programmes and Refresher Courses. The contributions in research and publication had merely mention in the form; therefore, it had become a matter for formality for the teachers and screening committee members involved therein.

The sixth pay commission introduced in 2006 replaced the prevailing system with the Performance Based Appraisal System and devised the Academic Performance Indicator format. It devised a format divided into three major categories- **Teaching, Learning and Evaluation Related Activities, Professional Development, Co-Curricular and Extension Activities, Research and Academic Contributions** - and having a good number of sub-categories having allotted fix marks for each sub-category and fixed a minimum number of score to be earned by the employees for the promotions at various levels. The third category received maximum focus of all and the academic staff particularly

engaged in teaching began to devote more efforts thereon. In the course of time since the introduction of the PBAS-API, it faced various inadequacies and challenges, and consequently, it underwent minor and major changes. To this date, UGC has introduced four major amendments in its guidelines.

Need of the Evaluation Method and Parameters

It is quite interesting fact observed herein is that UGC has devised separate PBAS-API formats for college /university teachers, librarians and directors of the physical education. However, the key person of the higher education, the principal of the college and director of a higher education institution (isolated posts in the college /institutions like that of librarian and director of physical education) has been deprived of any method to assess his/her performance as principal/director. These administrators face demand of high expectations from the stakeholders of the higher education system. The State Government of Maharashtra had introduced a novel idea of KPI in discussion for the assessment of university administration (vice chancellors and other officers of universities) in the state in the month of Aug 2011, which has been into abeyance since then. At present, the principals and directors have to present their performance in the same format devised for the teachers despite the fact that the principals and directors discharge a quite different type of duties from the teachers.

The stipulated eligibilities for the post of principal/director laid down by UGC make it explicit that it expects principal/director to be an academician of highest merit. These eligibilities are paramount to that of a professor in university (long standing of 15 years, designation as an associate professor, and 400 score from the category III-Research and Academic Contributions and some universities expect to be a recognized guide**.** In nutshell, the person desirous to be principal /director has to prove that he is an acclaimed and experienced academician trough his CV. However, once the person becomes a principal/director, s/he fails to spare time for his academic and research activities, as s/he has to devote time for administrative duties that includes everything under the sky of the college/institute campus apart from statutory commitments towards university, state government, UGC and society. It may be because UGC pay revision guidelines have made no provisions for the principals. Therefore, there is no separate PBAS-API for the principals. On the other hand, the professors of the university have opportunity to be promoted in the grade pay of Rs 12,000 when they work for three years in the grade of Rs. 10,000. Therefore, the teachers working as the principal find the post of the principal as the final/last position and finally find themselves in the lethargic stage, as they have neither time nor inclination for developing their CV in terms of PBAS API format. Consequently, very select few principals find themselves in the higher posts like registrars and vice chancellors for the appointments of which research performance is weighed more than the administrative skills. Their administrative achievements/ performance is not duly assessed as there has been no proper method for this purpose. , incentives in terms of promotions under CAS, special increments instead of allowances and prospects for future opportunities are the universal methods employed to increase the efficiency of the employees. This needs to be applied to the principals too.

Considering these facts, the college principals/directors do need a separate evaluation method based on the nature of duties they perform and expectations of the higher education stake holders they serve. A modest attempt is made here to present a format to evaluate the performance of the principals. Less weight need to be given to his teaching, research and publication while assessing his/her performance as the principal.

Principals' Performance indicator

I A	**Whether the college/ institution is accredited by NAAC or equivalent agency?** **If Yes,**	
	Grade A++	50
	A+	45
	A	40
	B++	35
	B+	30
	B	25

	C++	20
	SSR submitted	15
	IEQA submitted	10
	LOI submitted	05
I B	**Whether the college/ institution is included u/s 2(f) & 12 (B) of UGC?** **If Yes,**	
	Whether it is included in your incumbency period	25
	If applied in your period	10
I C	**Whether the college/ institution has received grants from UGC?** **If Yes,**	
	Has the college received College Development Assistance? If yes	20
	If applied	04
	Has the college received grants for IQAC? If Yes	10
	If applied	02
	Has the college received grants under Sports Development Scheme? If yes	20
	If applied	02
	Has the college received special grant for the construction of women's hostel?	20
	If applied	02
	Has the college received grants under remedial coaching classes Scheme? If yes	10
	If applied	01
	Has the college received grants to establish chair under Scheme of Epoch Making Thinkers? If yes	10
	If applied	01
	Has the college received grants to organize seminar/conferences? If yes	10 per event
	If applied	02
	Has the college received grants to undertake major research projects? If yes	10 per project
	If applied	02
	Has the college received grants to undertake minor research projects? If yes	05 per project
	If applied	01
	Has the teachers of college teachers availed teacher fellowships under FDP? If yes	05 per faculty member
	If applied	01
ID	**Whether the college/ institution is recognized as CPE?** **If Yes,**	
	If awarded	25

	If applied	10	
I E	**Whether the college/ institution is recognized as an autonomous institution?**		
	If recognized	50	
	If applied	10	
IF	**Whether the college/ institution has received an ISO certification**?		
	If Yes,	10	
	If applied	02	
I G	**Whether the academic audit of the college/ institution has been made?**		
	If Yes,	10	
	If applied	02	
I H	**Whether the Green audit of the college/ institution has been made?**		
	If Yes,	10	
	If applied	04	
I I	**Whether the energy audit of the college/ institution has been made?**		
	If yes		
	Till June of the next financial year		10
	If not		00
I J	**Annual Accounting**		
	Annual accounting completed and reports received		
	Till June of the next financial year		12
	Till Sept of the next financial year		09
	Till Dec of the next financial year		06
	Till March of the next financial year		03

I IA	**Students' performance**		
	Performance in university examination		
	Percentage of results	Above 90%	15
		Above 80%	12
		Above 70%	09
		Above 60%	05
		Less than 60%	05
IIB	**Performance in sports events**		
	Position earned in national level events	Winner	15
		Runner up	12
		Participation	06
	Position earned in state level events	Winner	10
		Runner up	08
		Participation	06
	Position earned in inter collegiate level events	Winner	05
		Runner up	03

		Participation	02
IIC	**Performance in cultural events**		
	Position earned in national level events	Winner	15
		Runner up	12
		Participation	06
	Position earned in state level events	Winner	10
		Runner up	08
		Participation	06
	Position earned in inter collegiate level events	Winner	05
		Runner up	03
		Participation	02
IID	**Performance in co-curricular activities**		
	Position earned in national level events	Winner	15
		Runner up	12
		Participation	06
	Position earned in state level events	Winner	10
		Runner up	08
		Participation	06
	Position earned in inter collegiate level events	Winner	05
		Runner up	03
		Participation	02

IIIA	**Faculty Development**		
	Teachers promoted under CAS		
		100%	20
		80%	15
		60%	10
		40%	05
		Less than 40%	00
	Research encouragement through local funds	If Yes	10
		If No	00
	Whether the service books of the college employees are updated	If yes	2 marks per employee
		If no	00
	Pension Cases	Submitted within 6 months before retirement	10
		Within 3 months before retirement	05
		In the month of retirement	02

IIIB	**Student welfare schemes**		
	Whether the placement cell for students is established	If Yes	02
		If No	00
III C	Whether the earn and learn scheme for students is implemented		
		If Yes	10
		If No	00

IIID	Innovative schemes for students	If Yes	10
		If No	00
	Students adoption scheme	If Yes	05
		If No	00
	Fee waiving scheme	If Yes	05
		If No	00
IIIE	Whether the college publishes Prospectus every year		
	Students adoption scheme	If Yes	05
		If No	00
IIIF	Whether the college publishes annual issue every year		
		If ten issues	10
		If five issue	05
		If One issue	01
IIIG	Whether the college conducts elections to the Students' Council		
		If yes	10
		If No	00
III H	Whether the college has taken measures towards ensuring safety of girl students		
	Anti –ragging committee	If yes	5
	Committee against sexual harassment	If yes	5
	Suggestion box	If yes	5
	Sanitary napkin vendor	If yes	10

III-I	**Special Achievements of the college**		
	Award to college	Award to College from University	15
	Award to teacher	from university	5
		From NGO	2
	Award to principal	From the state	10
		Award from university	5
		From NGO	02
	Academic award to students	From the state government	20
		From the university	10

IIIJ	**Contribution to University Management**		
	Individual contribution	As a Dean	15
		As a Member of Management Council	10
		As a Chairman of BoS	5
		As a member of Academic council	4
		As a Member of BoS	3
		As a Senate Member	2
	Teachers' contribution	As a Dean	5 per teacher

		As a Member of Management Council	4 per teacher
		As a Chairman of BoS	3 per teacher
		As a member of Academic council	2 per teacher
		As a Member of BoS	1 per teacher
III K	**Contribution to Social/Corporate Management (excluding political)**		
	Individual contribution		2 marks per position
	Teachers' contribution		1 per teacher

This is to admit here that the present format is an attempt at primary level, and not exhaustive. This is the first step in the direction of devising a format to assess the performance of the principals/ directors as the administrators. It needs additions, deletions and editions too. Here the stress given on the Research and Academic Contributions needs to be reduced and to be laid on the administrative achievements. Suggestions and positive criticism from the sincere academicians and administrators are expected on this write up.

Works consulted:

Government Resolutions. State Govt. of Maharashtra. Ministry of Higher and Technical Education. 5 Aug 2011.

UGC Regulations on Minimum Qualifications for Appointment of Teachers and other Academic Staff in Universities and Colleges and Measures for the Maintenance of Standards in Higher Education) 2010.

University Grants Commission (Minimum Qualifications for Appointment of Teachers and other Academic Staff in Universities and Colleges and Measures for the Maintenance of Standards in Higher Education) **(2nd Amendment),** Regulations, 2013.

UGC on minimum qualifications for appointment of Teachers and other Academic Staff in Universities and Colleges and Measures for the maintenance of Standards in Higher Education 3rd Amendment & Academic Performance Indicators (API) for Career Advancement Scheme (CAS) Regulations, 2016 – Gazette Notification, 4th May 2016.

University Grants Commission (Minimum Qualifications for Appointment of Teachers and other Academic Staff in Universities and Colleges and Measures for the Maintenance of Standards in Higher Education) **(4th Amendment),** Regulations, 2016.

❑❑❑