Chapter I

Best Practices Benchmarking in Higher Education for Quality Enhancement

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1.0 Introduction

With higher education becoming an international service, there is growing concern the world over about quality, standards and recognition. Consequent upon this trend, the debate on how benchmarks have to be evolved for ascertaining and assuring quality at different levels of higher education is significant. This paper highlights the initiative of the National Assessment and Accreditation Council (NAAC) to promote the concept of best practices benchmarking. It also sets the stage for a discussion of the identification, sustenance, dissemination and adaptation of best practices and of their transference from one system to the other.

1.1 Benchmarking

Benchmarking is an increasingly popular tool in industry and is used extensively by both manufacturing and service organisations. The Xerox Corporation in the United States of America (USA) originated the concept of benchmarking. It stems from the recovery programme implemented by Xerox in the face of severe competition from Japanese photocopier companies, which threatened its core business in the USA in the mid 1970s. From the 1990s benchmarking has become a management watchword, with increasing number of seminars and published literature devoted to it.

Benchmarking is an ongoing systematic means for measuring and comparing the work processes of an organization. The scene for benchmarking can be set, by considering three fundamental performance issues articulated by the following questions:

- Are we performing better than we have ever performed?
- Are there any other organisations that are performing well and from whom we can learn?
- Are there any practices that will improve our performance?

1.1.1 Types of Benchmarking

Experts have identified different types of benchmarking. These are internal, functional, competitive, and generic benchmarking. *Internal benchmarking* is done within an organization and typically between closely related units, using common or shared performance parameters as a basis for comparison. *Functional benchmarking* is a comparison of performance and procedures between similar functions, across different organizations. *Competitive benchmarking* generally focuses on direct competitors and with specific comparable operations. *Generic benchmarking* is undertaken with external institutions which represent the 'best-in-class' for particular aspects of the selected operations.

Another typology followed in the USA in the eighties was the development of *Process Benchmarking*. When companies realised it was easier to learn from organisations with whom they were not in competition, they adopted this approach. There is yet another type where *Best Practices Benchmarking* is advocated for self-improvement.

1.1.2 Best Practices Benchmarking

In the early days of benchmarking, the emphasis was primarily on measurement *per se*, and on relatively straightforward comparisons of suitable performance parameters within and between companies. Such parameters were usually simple productivity and efficiency measures. This was followed by a gradual shift in attention to processes within a more diverse range of functions which influenced overall performance. Today, the main focus of benchmarking activity is based on best practices, discerned from active collaboration with the best-in-class companies having comparable processes, wherever and in whichever industry they may be situated.

Various definitions exist of what constitutes the Best Practices Benchmarking. A group of leading high technology corporations of the USA sees a benchmark as 'the best-in-class achievement which becomes a recognized standard of excellence against which similar things are compared.' A leading exponent of the United Kingdom (UK) sees benchmarking as "… a structured process for learning from the practice of others, internally and externally, who are leaders in a field or with whom legitimate comparisons can be made". In spite of the variation in perspectives, the overall purpose and intent of the Best Practices Benchmarking can be summarized as the

- development of an understanding of the fundamentals that lead to success,
- focus on continuous improvement efforts, and
- management of the overall change process to close the gap between an existing practice of the institution and that of the best-in-class institutions with reference to the most relevant key performance variables.

1.2 Best Practices Benchmarking in Higher Education

Benchmarking, from the perspective discussed above, becomes relevant to higher education because of the external point of reference or standards it can provide to educational managers for evaluating the quality of the processes they manage. This approach is valuable for providing information to be used in the prioritization and decision-making processes of the institution. It replaces "gut feel" or "stab in the dark" with analysis on aspects like *How good is good?* and *Compared to what?* If we look at the 'decision making' process in higher education, it is evident that higher education has all along used benchmarks. But, it has traditionally been awash in non-operational data on aspects like finance, staffing, academics and students. Generally, it has been used to justify budgets, or for obtaining more funding. Obviously, little of it has been used to improve the quality of higher education. The traditional data such as annual endowment growth, educational and general operational expenditures per student, research income generated, class size, student/faculty ratio, library holdings, student success rate and rate of employment of students do not address the issue of quality enhancement directly and explicitly, although they are tangentially relevant. It is here that the application of the Best Practices Benchmarking can make a meaningful contribution to quality enhancement.

In order to be applied effectively to education, benchmarking may be seen as an ongoing systematic means for determining the best practices of the best-in-class institutions, and using the information as basis for goals, strategies and implementation. More simply best practices benchmarking for quality enhancement would be 'finding and implementing the best practices which would lead to significant improvement in the quality of educational provisions'.

Establishing benchmarks through best practices is not a new concept in higher education. It has already been tried by the Association of Commonwealth Universities (ACU). In 1996 Commonwealth Higher Education Management Service (CHEMS), a sub system of ACU launched an international "University Management Benchmarking Club" for universities from the Commonwealth. This Club focuses on the effectiveness of university-wide processes and not on narrow departmental functions. The CHEMS approach to benchmarking goes beyond the comparison of data-based scores and conventional performance indicators; it looks at the processes by which results are achieved. By using a consistent approach and identifying processes which are generic and relevant, irrespective of the organisation and how it is structured, it becomes possible to benchmark across sectoral boundaries (e.g., geography, size, etc.)

In CHEMS methodology, the first stage of the benchmarking process is the identification of aspects and processes to be addressed. Members of the benchmarking

club are then required to submit a written report, along with supporting data from the university's existing documentation, which highlight any perceived strengths or weaknesses. As regards the assessment process, the assessors award scores on the basis of the strengths thus identified. The reports detailing acknowledged strengths and areas for improvement are provided to each member, together with a composite model of the good practice. These are then discussed to arrive at a consensus as to what might be regarded as the best practice. It is this process that, the Club believes, encapsulates true benchmarking i.e. in the absence of predetermined benchmarks, the aim is to establish benchmarks through the process.

1.3 Experiences of the NAAC

The NAAC has introduced a methodology similar to that of CHEM's. In its assessment of quality of education, the NAAC methodology looks into how the various policies and processes of the institution determine the educational provisions and consequently, the quality of its performance. The focus is on both the functioning of the institution as well as the outcome. Under each one of the seven criteria of assessment, the NAAC has identified the elements of the best practices that contribute to the efficient and effective functioning of the institution and they are called *criterion statements*. They serve as benchmarks. Instead of identifying the practices of the 'best-in-class' institution, the criterion statements focus on the norms that generate the practices. Under ideal conditions, the best practices we can expect an ideal institution to adopt are identified as *criterion statements*. They serve as best practices benchmarks. The criterion statements for the seven criteria are as below:

Criterion I—Curricular Aspects

- The institution has clearly stated goals and objectives that are communicated systematically to all its constituencies.
- The programmes of the institution are consistent with its goals and objectives.
- The institution has a wide range of programme offerings that provide adequate academic flexibility.
- Feedback from academic peers and employers is used in the initiation, review and redesign of programmes.

Criterion II— Teaching-Learning and Evaluation

- The institution facilitates the effective running of the teaching-learning programmes.
- The institution has a well-conceived plan for monitoring student progress continuously.

- The student assessment procedures and systems are reliable and valid.
- The institution has an effective mechanism to recruit qualified and adequate faculty.
- The institution has an open and participative mechanism for evaluation of teaching, research and work satisfaction of the faculty.
- The teachers have opportunities for continued academic progress and professional development.

Criterion III— Research, Consultancy and Extension

- The institution promotes research culture among faculty and students.
- The institution encourages faculty to publish in academic forums.
- The institution promotes faculty participation in consultancy work.
- The institution is responsive to community needs and conducts relevant extension programmes.

Criterion IV—Infrastructure and Learning Resources

- The institution has adequate physical facilities to run the educational programmes efficiently.
- The growth of the infrastructure keeps pace with the academic growth of the institution.
- The institution has effective mechanisms for maintenance and optimal use of infrastructure.
- The institution had adequate library and computer facilities and other learning resources with easy access for all its constituencies.

Criterion V—Student Support and Progression

- The institution provides clear information to students about admission and completion requirements for all programmes, the fee-structure and refund policies, financial aid and student support services.
- The institution has sufficient and well-run support services to all its students.
- Student progression is monitored effectively.
- The institution has an effective mechanism to use student feedback for quality enhancement.

Criterion VI—Organization and Management

- The offices and departments of the institution are governed on the principles of participation and transparency.
- Academic and administrative planning in the institution move hand in hand.
- The institution practices relevant welfare schemes for all its constituencies.

- There are fair and expeditious grievance redressal mechanisms at all levels of the institution's functioning.
- The institution is effective in resource mobilization and planning development strategies.
- The finances of the institution are judiciously allocated and effectively utilized.
- Budgeting and auditing procedures are regular and standardized.

Criterion VII—Healthy Practices

- The institution displays sensitivity to changing educational, social and market demands.
- The institution is geared to promote an ambience of creativity and innovation.
- The institution adopts quality management strategies in all academic and administrative aspects.
- The institution strives to promote value-based education, social responsibilities and good citizenry.

Accordingly, in the case of Criterion I for instance, some best practices the four criterion statements can generate may be, respectively, the preparation and timely distribution of an institutional brochure, the choice of courses which carry out institutional policy, ensuring academic flexibility, and stakeholders' appraisal of the work of the institution. In practice, the self-study of the institution provides information on existing practices of the institution with reference to criterion statements /benchmarks. On the basis of the data collected from the self-study report, the Peer Team analyses any gaps between the performance expected with reference to the benchmark statements and the actual performance witnessed; the reason for the gap, if any; the strategy and potential available to bridge the gap; and the possible remedy. It makes judgement on the performance of the institution in its totality by considering these before rating the existing practices of the institution. This type of process-mapping and assessment helps to highlight process ownership (which department does what?) and the distinction between value added and value lost activity. Process-mapping helps to identify problem areas, ownership of process and measurement points. Bench-marking through process-mapping helps to identify where practice has deviated from policy.

The Peer Team reports have a wealth of information on the best practices for which the institutions have been highly commended. As more and more higher education institutions (HEIs) are volunteering to get assessed by the NAAC, they look for more details about the best practices they can adapt. HEIs would like to know the practices that have contributed to enhancement of quality in the accredited HEIs. At an ideological level all institutions are similar. But on a practical plane, only a few select HEIs tend to be 'Quality HEIs'. While the general conditions governing all the institutions remain almost the same, how is one

institution distinctly different from the others? In order to answer this question, looking at the practices for which the assessment teams have commended the HEIs may be of help and the assessment reports have a wealth of information on "demonstrated best practices" – proven strategies that add to the quality of an institution. As a response to this need, the NAAC is organizing this conference to facilitate the identification and dissemination of the best practices that are found in quality institutions in the country.

1.4 Points for Discussion

Best practices are perceived to have specific characteristics. These are important predictors of their success. For example, a practice requires widespread acceptance by groups, social systems and also by individuals. Only then can it become successful to be put into practice by the organization and will, in the long run, be adopted by other institutions. In order to analyse these specific traits and implications, the following four themes require an in-depth discussion:

1.4.1 identification of best practices
1.4.2 sustainability of best practices
1.4.3 dissemination of best practices
1.4.4 adaptation of best practices

1.4.1 Identification of best practices

In simple terms, the practices which add commendable value to an institution and its various stakeholders are the best practices. However, they depend on many variables. These should be kept in mind while identifying the practices. What might be considered as 'best practices' are limited in a number of ways. Firstly, what we consider to be the 'best' educational practice depends on our own limited knowledge, perspectives, contexts, interests and values. The interests and values on which the practices are premised may be contested by others. In that case, many of the assumptions on which the practices are premised will not hold. Secondly, 'best practices' are contingent, context dependent and defy generic description. Thus if these practices are to be useful at all, we need to identify the ones that can be so re-stated as to be clearly seen to contribute to value addition to the institution or the stakeholders. Only then can they become context-free and less subjective. This requires a predominantly 'fitness for purpose' judgment and one cannot write an ideal typification of 'best practices' applicable to all contexts.

The input factors, the process factors and output factors should be taken into account in identifying the criteria of best practices. The criteria of economy, efficiency and effectiveness may also be used in identifying them. Another way of identifying the best practices is the inductive approach. The practitioners may be asked to describe

their best practices and the criteria they have applied in their identification, justifying their choices logically. From this, one can discuss the benchmarks of the best practices as perceived by them. The International Network of Quality Assurance Agencies in Higher Education (NQAAHE) suggested some guidelines for the identification and application of good practices. The best practices should

- be dynamic and revisited periodically;
- recognize diversity and cultural and historical contexts;
- not lead to dominance of one specific view or approach; and
- promote quality of performance.

These principles should be interpreted and applied appropriately to different contexts, while identifying the practices.

1.4.2 Sustainability of best practices

The characteristics of best practices that contribute to success and sustainability may be identified. Some characteristics inherent in the practice which are worth mentioning include: (a) relative advantages over the preceding practice, (b) compatibility to institutional context and culture, (c) divisibility or availability in small parts as related to the whole; d) freedom from complexity which should be less for the adoption of the practice; e) communicability which is essential for the acceptance of the practice. There are also institutional factors that are extrinsic to the practice but have a great impact on the sustainability of the practice and they include: a) the culture of the institution that either supports or rejects new practices, b) commitment to the practice evinced by the members of the institution, c) institutionalisation or otherwise of the practice and d) the team spirit and ability to work in small groups and also shoulder individual responsibilities to contribute to the effectiveness of the practice. Whether the best practice under consideration remains to be so depends on the interaction of these factors.

In particular, institutionalisation and internalization are keys to sustainability. Institutionalization refers to the process of making the best practices an integral part of the institutional working. Institutionalization of best practices is possible when there is an internalization of these practices among all the members of the institutional community. The best practices should become a part of the working culture of everyone in the institution. Critical reflection and the spirit of innovation should be encouraged and cultivated.

1.4.3 Dissemination of best practices

For the system to benefit from the experience of the sub systems, the system of recording and dissemination or communication of the dynamics of the practice is

very important. Those who adapt the best practices from others do so, as a result of their social interaction with others who either promote those practices or use them. Lack of interaction of the adopter system with external agencies hinders this process. Even within an institution, at times there are communication gaps which affect the expected outcome of the practice. It also makes building on experience and reviewing the practice difficult. Effective use of recording and reviewing is essential to develop conviction in the system for a particular practice. Institutions may have to evolve suitable strategies like database of good practices, review forums, recording evidences for success etc to discuss within and among institutions. The Internal Quality Assurance Cell (IQAC) can make a distinctive contribution here.

1.4.4 Adaptation of best practices

Although it is true that "the best are the borrowed ideas" contextualising them is essential. Elements of best practices or descriptors for the best practices can always be borrowed and improved upon further, with some amount of creativity and spirit of innovation. In adapting or borrowing best practices from other systems, we should remember that they can be ideal models of good practice - ideal, systematic, representations of patterns amongst variables. They may be simplifications of the complicated realities. When a system adopts a particular practice, several barriers may be encountered. Successful adaptation of best practices depends on both individual characteristics and the institutional context.

The individual characteristics may include factors such as the value system of individual members of the institution, their needs, creativity of the members who would adapt the practices and cohesiveness among the members of the institution. The leader's attitude to a practice is an important factor in the adaptation. When the head is receptive and is willing to adopt an innovation half the barrier to implement the practice is overcome. Further, effective leaders involve their staff and students in decision-making regarding new academic and administrative practices and that makes all the difference in the successful adaptation of the practice. The institutional context may include factors such as resources available, institutional arrangements, flexibility in institutional structures to support the practice, etc. If the interplay between the individual and institutional factors is fruitful, the practice is adapted successfully resulting in expected outcomes.

1.5 Contributing to Best Practices Database

For most institutions of higher education the desire to learn from each other and to share aspects of good practice is almost as old as the institutions themselves. With the emphasis on collegiality, such desires have traditionally manifested themselves in numerous ways: professional associations, both academic and non-academic; meeting

to share common interests; and visits by delegations from one higher education system to examine practices in another. The latest in this list is the interest to participate in the assessment activities of the NAAC. Thus improving performance by collaboration or comparison with other HEIs is nothing new in higher education. What is new, however, is the increasing interest in the formalization of such comparisons, and one recent development in this area is that of creating the best practices database. Networks of HEIs and QAAs have shown interest in identifying best or good practices collectively; the UNESCO has developed good practices to be followed by Quality Assurance Agencies (QAAs). The QAAs have developed good practices that could be followed by HEIs. The NAAC, with its rich resource of the reports of more than 2000 accredited HEIs would like to develop a repertoire of best practices for the Indian HEIs.

Rather than merely compiling the best practices as stated by the HEIs, the NAAC would like to validate them and include in its database only those that are beneficial in the judgement of the peers. This requires every HEI to reflect on the practices that add commendable value to its functioning and provide evidence for the success of the practice. Emphasising the need to reflect on best practices, the NAAC intends to make the identification and validation of best practices as a part of the re-accreditation strategy. Conferences and workshops of this nature are expected to facilitate the realization of that aspiration.

1.6 Conclusion

In the light of the discussion of the best practices presented above, it is hoped that the deliberations of the conference at both the plenary and the workshops, presented in this report with case illustrations, would help identify benchmarks and also concrete instances of proven quality-facilitative outcomes. The practices themselves may be of little use if they are not validated according to parameters which emerge from the discussion.

Chapter II

Best Practices in Curricular Aspects

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2.0 The curriculum is the notional foundation of an educational activity conceived by a provider and it may be spiritual, social or any other. However, the realization of the notion - or policy - depends entirely on the community of stakeholders of an institution who are directly involved in operationalizing it: students, teachers, administrators and workers. The operationalization, however, depends on the best curricular practices. In setting up mutually enriching and acceptable practices, no single institution can work in isolation from another because all institutions are networked someway or the other. Hence, mutual dependence and enrichment carry an advantage. This chapter is an attempt to set forth the conceptual framework of the best curricular practices of the best providers in the country in Section A and to present case illustrations of them in Section B. The practices are identified according to criteria which are universal and contextual, and the case illustrations reflect them.

Section A: Framework

2.1 Introduction

The name "best practices" needs a little explanation. "Best" implies the unique or the "topmost", the term "best" being in the "superlative degree" of comparison. "Best Practice", when it is not derogatory in meaning, implies according to the Oxford dictionary, not something unique to an individual or an institution but a "way of doing something that is the usual or expected way in a particular organization or situation: common/ current/ standard practice". The connotation of "best practices", as used by the NAAC, is broader; it does not reflect either meaning because they are best as a class of practices, not individually, and they are the best chiefly because they are found to enhance quality in general. In other words, best practices are quality-enhancing academic/ administrative/ infrastructural strategies adopted by highly accredited institutions of higher learning in the present instance. While this is the general meaning, one has to describe the practice in terms of specific characteristics, which go to make it. These characteristics therefore, may be treated as criteria which determine the practice. The following are the criteria, which, individually or collectively define the best practices identified in section B of this chapter. These are

curricular best practices and they cover a wide range of activities, which the institutions have found to be quality-supportive. The criteria used to define them fall into two categories: Universal Criteria and Contextual Criteria.

2.2 Universal Criteria

2.2.1 Excellence

It ranks foremost among them. It means the quality of something being extremely good. In an academic context it means the pursuit of the best strategies to reach higher knowledge and, in a pedagogic context, the best ways of imparting it to learners. This is a universal criterion because in any sphere of life anyone would want the best and none would settle for the second best, if they could so manage. When, for instance, a highly competent, intelligent and skilful candidate presents himself or herself for a placement, the objective employer who is looking for efficiency, circumspection and intelligence in performance, will prefer that person to anyone else. The same is true of a course, a teacher, a student or an institution. If, however, one is compelled to relativize excellence in order to meet unavoidable needs, that is, when excellence is made to accommodate utility, in a socio-human context, the criterion ceases to be universal in application although it remains so in principle. An instance is that of the compromise one should make when one has to democratize education in the interests of major sections of society. Nevertheless this criterion helps to apply rigour in academic activity, in order to ensure the *bestness.*

2.2.2 Value / Values

Of these two, the first is universal and the second culture-specific. Making something more important and useful than it is now is otherwise described as 'value addition'. This term is frequently used in academic parlance today. Thus value-addition can make a course of study more relevant to given needs. Value addition is crucial to enhance employability because the global employment market today requires in prospective employees complex and varied skills and competencies.

Values, on the other hand (note that the word is not used in the singular in this sense) are not directly skill-enhancing. They are personal, social and spiritual. Hence they are highly subjective and contextual. Societies with spiritual and religious traditions and predilections lay great emphasis on these. For instance such societies insist on the necessity of discipline which on liberal campuses is ignored. Nevertheless the indirect benefits of values to individuals which accrue in terms of a balanced personality or integrity of character are universally acknowledged. Ethical values underlie any system of education everywhere.

2.2.3 Goal-Orientation and Process-Building

The two are complementary and they underlie all human activity, especially those which are time-bound. Goal-orientation is nothing but keeping a chosen purpose in focus. The corollary of this is process-building, the means adopted to achieve the purpose. Often, when an activity aims at more results than one, goals may be multiple. Arranged as a set of priorities they go to make a paradigm. For instance, the altruistic goal set by the founder of an educational agency in the distant past cannot, by itself, meet the fast changing needs of the youth of today who may want to achieve things not quite compatible with the original goals of the institution, but which, at the same time, are justifiable and legitimate. Where an institution offers educational services to all without discrimination, the freedom of learners to pursue their aspirations in an institution cannot be restricted. Whether one wants to serve the downtrodden or make oneself rich with the education one enjoys is a matter of personal choice not often controlled by institutional goals. In order to reduce the awkwardness caused by ancient goals which are left unupdated and uninterpreted, in spite of the universal relevance of their underlying values, a paradigm of goals may be set up by way of updating and reinterpreting them. This does not mean dispensing with the basic policy of education pursued but it only emphasises the need to make goals universally relevant within the context of such a policy. The process building should match the stated goals.

2.3 Contextual Criteria

Contexts may be temporal, spatial, socio-cultural or discipline-specific. As all of them are subject to change, the criteria which govern them cannot be universal although relevant. Nonetheless they are useful here and now.

2.3.1 Utility

Education for a job, knowledge for utility is a post-renaissance criterion with which the quality of education is assessed in many cultures across the globe. With the advancement of modern technology and market economy the need for mobilising an enlightened work-force has become more important especially in commercial, managerial and technical activities in many countries. Accordingly, academic activity in these areas is governed by this criterion. Employability, more than the renaissance rigour of pursuing knowledge for its own sake, has come to stay for the time being as a goal of the academia.

2.3.2 Access

The expansion of higher education with its democratisation in the sixties has made it necessary for educational agencies to make higher education accessible to all.

Augmentation of infrastructure, increase in the number of programmes and extension of educational services to areas and sections of society hitherto unreached have become the identifying marks of a socially sound educational agency. However, the uncompromising yardstick of quality, namely, merit in a competitive context, cannot be changed under any circumstance. If it is so, as it is truly desirable, the new challenges are those of making access go hand in hand with quality and merit. It is here strategies like remediation, discriminative but benign pedagogy become features of recognizable quality.

2.3.3 Relevance

Suitability to a given situation is another criterion to identify a good academic strategy. If it suits the situation that is present across countries — such as the trend to seek employment in specific areas, or a national context — such as developmental activity in our own country, or a regional need — such as marine activity in coastal Andhra Pradesh, or a local need, the educational activity acquires a dimension of quality. This is true of relevance to social and cultural situations as well.

2.3.4 Service

Programmes of higher education institutions which offer enabling services to stakeholders without expectation of economic returns may be said to enhance access. The learner-enhancement, employer-enablement and society-enablement services acquire a dimension of quality. "Service-learning" has become an important quality feature in many institutions in the world today. Learner-centred pedagogy, neighbourhood-centred sustainable services, recruitment-enabling placement services and such strategies help an agency serve its stakeholders.

2.3.5 Preservation and Promotion of Heritage

As human civilisation is a continuum, the gains of the past need to be preserved and augmented. Preservation of ancient languages and literatures, of traditions which shaped the thought of the world in the past, of documents and manuscripts no longer extant and of systems of medicine, philosophical thought and other treasures such as archeological findings is a task of learned men and institutions committed to it. When education provides the necessary skills and scholarship for such a task, it acquires a recognizable quality.

2.3.6 Performability

Performability is a two-fold criterion. It is a process-criterion when a highly preferred academic strategy is easy to operate. It is a product-criterion when the output of the strategy really performs well to make a positive impact. When for instance, the decision

to offer on-the-job training for those who do a vocational course is made easily operable because of the human and material resources available on the spot, the process is performable - as in polytechnics and technical institutions. The output will then be adequate and usable for the purpose it was designed. As these two are obviously complementary, performability is here set up as a single criterion.

Context-specific criteria are many and varied but most of them can be subsumed under one or the other of the criteria listed above. It may be seen that these criteria help extend the limited connotation of the collocation 'best practices' to mean 'the most highly favoured academic strategies used by some of the best institutions in the country to enhance quality in performance'.

2.4 Some Best Practices

More than 160 HEIs accredited with 'A' or 'A+' or 'Five Star' have adopted many Best Practices which come under one or more of the following aspects:

2.4.1 Curricular Aspects that Promote Excellence

a) Rigorous Curricula

The rigour of curriculum that makes heavy demands on learner time and effort may be illustrated by the best curricular practices of one of the HEIs. Based on a multi-faceted, comprehensive and well-defined curriculum periodically updated with student and faculty feedback, the curricular demands for a research degree include course work comprising ten advanced level obligatory courses and four electives in addition to the dissertation. Energy System, Environmental policy, General Equilibrium Modelling and others are among the courses. Collaboration with three overseas institutions besides cross-pollination of current ideas across national borders through visiting professors have made the curricular practice globally relevant and excellent. This is just one of the many prevalent best practices and there are many others with varying degrees of perfection.

b) Collaboration with Institutions of Quality

Collaboration with institutions of acknowledged repute known for the rigour of curricula and other academic strategies often enhance the quality of the programmes of an institution. Illustrations are many but only some are highlighted here. Research programmes of at least one university are pursued under the auspices of Baba Atomic Research Centre, National Council of Software Technology, Council for Scientific and Industrial Research, etc. Another university's twinning programme with Agricultural Research Advisory Board, Malaysia; the unique curriculum put together and has been successfully operated over more than a decade by an autonomous college for Davidson College, North Carolina in order to offer a 'Semester-in-India' programme

for the benefit of about 25 students from reputed colleges and universities in the USA; and a similar programme offered by the Central University of Hyderabad are just a few examples of the best practice of inter-institutional co-operation to promote academic excellence. In most cases the emerging curricula for both research and other programmes act as models and set the pace for enhancement of excellence.

c) Some Competence-Enhancing Curricular Strategies

There are some other best practices which seek to enhance the competence and skills of learners towards achieving excellence. The tripartite curricular structure of a college that facilitates learners to do general studies in the first year; field placement in both combat and non-combat areas in the second; and advanced studies in the third is a helpful curricular model that can promote assimilation of knowledge and skill development at the same time. Somewhat similar is the arrangement of a technical institution the integrated curriculum of which is both rigorous and highly beneficial to learners who can thus obtain two degrees. Efforts of lesser fame, but quite helpful for the promotion of excellence, are curricular efforts to provide for the enhancement of communicative and cognitive skills and abilities of which illustrations are numerous.

2.4.2 Curricular Aspects that Promote Value-Addition

The best practice of value-addition functions in the area of professional and vocational programmes. The otherwise common curriculum is enriched by complementary and supplementary components which are pursued parallelly through horizontal mobility.

a) Full-time/Part-time Technical Courses

By far the most popular single technical course preferred by almost all the HEIs is computer education. Courses of varying duration are integrated into the curriculum or offered outside it by either the institution or an outside agency, the value added thereby being employability. A number of para-professional courses fall under this category including lab-technology.

b) Modular Courses

A wide range of modular courses are offered through parallel arrangements on campus. They enrich every discipline of all faculties. A list of them will be too long to be included here. Some instances are export-import studies, spoken English, forensic chemistry, fashion designing, jewellery designing, interior decoration, child development, teaching special children etc. A large number of them are offered by many colleges and universities through the parallel institutions set up on their campuses.

c) Value Addition by Core-Diversification

The conventional mono-core programmes are now diversified by some HEIs to generate value addition. The double and triple major programmes and the integration of the vocational courses into different core options are some examples.

d) Choice of Quasi-Professional/Professional Courses

Most HEIs have updated and modernized curricula with the choices made in favour of professional and quasi-professional courses. Microbiology, management, commerce, computer science, information technology, environmental sciences, petroleum technology, paper technology, power electronics, mass communication, visual arts, medical chemistry, computer-aided textile designing, energy systems, developmental economics, biotechnology, genetics, industrial economics, industrial microbiology, forensic chemistry, etc. have potential value addition for those who seek employment. Almost all HEIs have adopted one or more of these courses and many more.

e) Inter-Disciplinary and Multi-Disciplinary Courses

Some HEIs have inbuilt curricular strategies to widen the skill base of undergraduates by making it obligatory for them to choose some courses of other faculties external to them. Thus science students are made to take some arts courses and vice versa. This inter-disciplinary exposure is believed to motivate later choices for in-depth study besides widening circumference of knowledge and skills. There are other more contributive inter-disciplinary programmes which have greater potential for value addition. Thus courses generated by history and archeology, language and journalism, environmental science and any other discipline, physical sciences and medicine and any discipline and computer science are only a few of the inter-disciplinary combinations prevalent in the curricula of many HEIs. There are other strategies of value addition such as preparatory courses which facilitate entry into international careers and global higher education overseas; refresher and in-service training programmes for updating skills; and coaching for entry into public services in the country.

2.4.3 Curricular Aspects that Promote Values

Almost all HEIs affirm moral, spiritual and social values as it is obvious in their mission statements. Some have integrated courses on values in the curriculum: they are obligatory at the first year degree level or at the second in some HEIs; they are part of the Foundation Courses in the UGC curricular model; they are offered outside the curriculum by means of guest lecturers; or they are offered informally through other arrangements. Explicit goal statements make values ubiquitous. This is integral to education and other systems which are guided, by and large, by traditional values in a land which has a long tradition of the past.

Goal-Orientation and Process-Building

Goal-orientation reflected in mission statements triggers curricular processes of which curricular structuring is foremost. Each HEI has more than one goal, whether they are explicitly stated or implied or not stated at all. Their functioning makes the hidden presence of such goals evident. Their goals generally go to make a paradigm: (a) institutional goals laid down by founders which determine its educational policy (in some cases they exist in the reinterpreted version); (b) goals determined by learner needs such as career enablement; (c) goals which contribute to national development; and (d) those which foster social and spiritual values. Underlying this paradigm is the quest for excellence which is found to be an academic necessity, for, without it, globalisation of Indian higher education is bound to suffer. One cannot opt out of it.

Curricular processes include selection and organisation of courses in order to translate goals into action. While many colleges under the affiliating system do not have the freedom to do it, universities, to a large extent, and autonomous colleges, to some extent, have the freedom to do so. It is heartening to find that a large number of programme options and a considerable number of professional/vocational courses have been chosen by most HEIs.

Other curricular processes include strategies for making these courses accessible to learners. Autonomy, parallel institutions, distance education, Choice-Based Credit System, Cafeteria Curricula and Open Universities are some arrangements utilized by HEIs to enhance accessibility of courses to learners.

Curricular structuring and assigning number of credits according to the proportional weightage of the different categories of courses chosen to realize the paradigm of goals is a crucial curricular process which can gain global parity. Of this, however, there is no substantial evidence except in some frontline universities.

2.4.4 Curricular Aspects that Serve Contextual Criteria

a) Utility

This has already been partially dealt with under value addition. Apart from the utility of career generation some courses meet specific needs, which are not often met by courses in general programmes. These are many and varied.

i. Cultural and aesthetic needs:
Temple architecture, fine arts, performing arts, jewellery design, theatre arts, folk literature, art history, travel and tourism, health education, yoga, teaching visually impaired children, education for the mentally retarded, western music, carnatic music, interior decoration and crafts, population education, food sciences, gem cutting, gardening, women and child development and other courses which

fall under this category meet immediate basic needs besides satisfying cultural and aesthetic expressions. They are not so much either professional or commercial as technological and professional courses are, as they are designed to meet basic human needs and the need for cultural expression in one's milieu.

ii. Rural needs:
All courses related to agriculture, farming, and cottage industry meet rural needs besides initiating learners to extrepreneural skills. Dairy farming, aquaculture, sericulture, indigenous medicine, veterinary practice, mushroom culture, matches manufacturing, bioinformatics, biostatistics, immunology, lab technology, physiotherapy, maternity, horticulture, vegetable growing, watershed management, biogas, happy home, community health and medicine and others meet this special category of needs. The entire programme of Gandihgram Deemed Rural University has a wide range of courses including artisan skill-development and building construction. Many other universities and colleges offer these and more.

iii. Modern gadgetry courses:
Modern gadgetry has opened up a wide range of opportunities for placement and self-employment. Videography, media studies, news reporting, electronics and maintenance of lab equipment and other domestic equipment, bio-medical engineering, aeronautics, export management, secretarial practice, museology, actuarial science, advertising, multimedia, screen printing, computer hardware, TV repair and maintenance, cable networking and similar others meet needs of daily living. There are other needs which are met by innumerable other courses offered by HEIs. Of particular importance are the courses on Women Studies and Empowerment which meet an important social need of our society. Curricula of several HEIs for women and men offer these.

b) Access

This is the best practice adopted by almost all HEIs in the context of demoractisation and expansion of education. Access may be considered in two ways: general accessibility enabling a wide range of learner curricular choices and specific accessibility of courses to disadvantaged groups on grounds of equity, and social need.

i. Perhaps for the first time in the history of higher education in India, thanks to the academic awakening brought about by NAAC, the widest possible range of programme options exist in our HEIs, and the frontline universities in particular. There are as many as 180 courses offered by one university alone. The news that there are only 48000 applicants against 70,000 engineering vacancies in the

State of Tamil Nadu this year is a pointer to the phenomenal expansion of programme choices available to learners. The curricular strategies which have made this possible include (a) introduction of self-funded courses; (b) multiplication of departments on the one hand and their reorganisation under Schools in order to facilitate inter-disciplinary co-operation on the other; (c) parallel arrangements on campus making horizontal mobility possible during the period of study such as the School of Continuing Education or other Institutes set up by colleges; and (d) Distance Education and Open University arrangements.

ii. Access to higher education is now available, in a limited way though, to target groups that are socially and economically disadvantaged. Courses offered to educate exceptional children, the visually handicapped and the mentally handicapped are some instances of sensitivity to exceptional social needs. Women empowerment programmes are offered by many men and women colleges and universities.

c) Relevance

The criterion of relevance is contextual and it is generally limited by time and space. Nevertheless it is an indispensable curricular aspect which is community-dependent. Acceptability to global, national and local communities (the 'mega stakeholders' if one may call them so) is a necessary condition for curricula to be operable.

i. Most of the professional and technical programmes offered by the best HEIs in the country are acceptable to the global community. This is particularly so in the fields of information technology, engineering and management studies. Other unique specialized programmes which are culture-specific and national in character are also globally relevant. These make overseas presence on Indian campuses mutually beneficial to both the provider and the beneficiary of the programmes. Offering of programmes alone cannot satisfy the global consumer; HEIs have yet to gain parity with world standards chiefly in skill development, especially that of communication in English.

ii. Some HEIs offer courses designed to meet national needs. The country's need for fuel augmentation, its necessity for planned development and economic growth and its urge to practise equity in the context of economic inequality are accommodated within the curricular goals of several top HEIs. The programmes offered by them make a positive impact on the governance of the country.

iii. Region-specific needs are met by courses designed for the purpose. The heavy concentration of commerce and management courses in the industrial and commercial belt of Maharashtra; geology, geophysics and Himalayan Region

Studies programmes of the universities and colleges in the area; coastal zone management, aquaculture, oceanography, naval architecture, remote sensing and other marine programmes of some coastal universities cater to national and regional development.

d) Service

Offering service to stakeholders and to the society at large is a salient feature of any sound educational system. For this reason 'service learning' programmes are popularised in developed countries. Most HEIs have extension programmes in our own country and they sensitize our learners to the realities of rural India. With the exception of a few programmes which are sustained over a period of time and manifest an academic-extension interface for earning credits, others require streamlining.

HEIs also offer academic services to meet felt needs. The national teacher training programme offered through correspondence and the modular in-service training offered to teachers from third world countries for improving communication in English by a Deemed-to-be-University are service-oriented. Almost all remedial programmes offered to both urban and rural slow learners offer competencies for better performance. Special assistance programmes offered to meet needs of men in different occupations such as fishing deserve particular mention.

e) Preservation and Promotion of Heritage

Unique systems of knowledge handed down by tradition need preservation and development. Some HEIs are involved in this scholarly task.

Preservation and dissemination of the available knowledge of the ancient sashtras is the mission of a specialist HEI. Encouragement of the growth of Kannada Literature and culture and the development of Punjabi culture and Guru Nanak Studies are other such instances. Specialized curricula such as these cater to the global quest for historical research among other things.

f) Performability

Performance of a curriculum is more than a selection and organisation of courses of study. A sound curriculum is performable when it facilitates goals to be achieved through in-built processes. Temporal structuring, progressive gradation of levels of matching differential achievements of slow and fast learners, provision for learner-centered activity, differential crediting of modules, horizontal mobility, unitization, teachability and many other factors make a curriculum workable. External support such as infrastructure, competent faculty and a reliable evaluation system are among the requirements which determine these in-built processes. Of these, semesterisation, Choice-Based Credit System, and, in some cases, unitisation are among the best

practices prevalent among the HEIs. Performability also depends on the success of corporate curricular effort which is yet to be formally streamlined in most of our institutions.

2.5 Impact

Positive feedback on impact alone can make any system dynamically effective. As the Peer Team reports do not provide any data on formal impact analyses made of curricular aspects only an impressionistic report can be given here. Certain conclusions may be drawn from the data provided.

i. The most comprehensive and helpful change that has come about in the system of higher education in our country in recent years is the shift from conventional and classical curricula to a more dynamic and learner-friendly system of curricular choices. Almost every HEI, in both rural and urban areas, has become sensitive to learner needs in a global and national context. Conventional universities have become more flexible to accommodate changes in this direction. Many affiliating universities are reportedly quite accommodative to incorporate new courses through the efforts of representatives of individual colleges on their Boards of Studies. Curricular options, electives, vocational programmes and modular courses appear to be numerous. Never before was the utility of higher education for acquiring employment potential as unmistakably evident as it is now.

ii. Also evident is the improvement of curricular processes, at least in some HEIs, in the direction of greater flexibility in order to accommodate learner interests. Reinterpretation of older mission statements to serve aspirations of youth, the Choice-Based Credit System (although that which is in vogue needs substantial refinement to ensure its true purpose), more flexible curricular models, semesterisation, unitisation of syllabi into modules, continuous internal assessment and other best process-practices are evident. A conscious development of these processes may be the agenda for the future.

iii. Curricula have become more sensitive to specific needs in addition to the commitment to enhance the employability of students. There are many courses designed to meet not only national, regional and local needs but those of the disadvantaged sections of society as well. Equity is not lost sight of in the effort to gear curriculum to employment.

iv. Another salient feature of the cultural impact of our curricula is the sensitivity to the preservation and promotion of the culture and ethos of our tradition. Almost every curriculum is wedded to social, spiritual and ethical values without

being sentimental and fanatic. Rare systems of knowledge handed down to us are preserved and propagated.

v. However, it is too soon to affirm either any significant social change that curricula have brought about or any lasting global impact except perhaps, marginally, for the reason that studies have not yet been made of them. Given the trend of the progress made so far, hopefully, they will not remain dreams for long.

2.6 Adoption / Adaptation of Best Practices of Others

a. Some best practices can be adopted to the extent existing infrastructure and human resources permit by optimising their use. Institutions under the affiliating system which do not have the freedom to alter a given curriculum may attempt this. Optimisation of time is quite helpful. Advancing daily commencement of work so as to be on a shift, say, between 8.30 a.m. and 1.30 p.m. will make the whole afternoon free for running additional programmes. An academic body set up by the college and run with some of the regular faculty and outside guest faculty can offer a considerable number of certificate and diploma programmes. This is done by some HEIs which do not run an evening shift of the same courses offered in the morning. The courses offered may be self-funded and reasonable fees may be charged for indispensable courses such as computer science and information technology, personality development courses, Communication English, etc. A department of continuing education may monitor such programmes. Another way of optimising time is to commence a college session half an hour earlier than usual and to close it half an hour later than usual. With the reduction of the duration of intervals and adoption of 55-minute periods (as most colleges do) in addition, a saving of nearly two hours is possible. The ten hours an institution gets this way for a week is adequate to offer a two-credit programme in addition to the university work. The quality of such programmes should be sustained so as to win the confidence of their takers. If the certificates and diplomas are offered under a franchise arrangement with well-known professionals in the field at moderate cost there will be many takers. A third way of optimising time is to offer modular courses during holidays and vacations with internship arrangements. Some institutions run programmes separately and additionally between 6.30 a.m. and 8.00 a.m. and between 5.30 p.m. and 7.30 p.m. three or four times a week with guest faculty. Temporal optimisation is thus strategic to adopt relevant best practices which are feasible.

Where expertise is not available at one place to offer a specific programme of professional value, a twinning arrangement or a consortium of more than two institutions under the same or different managements may be followed with a Memorandum of Understanding (MoU) for a specific period of time. The co-operation between an

arts and science institution on the one hand and a professional institution on the other may help adopt a number of professional / vocational programmes. This is more or less the revival of the inter-collegiate lectures that were followed earlier and are still followed by some. The difference is the systematic sharing of work on a programme with appropriate monitoring to ensure quality with cumulative rigorous assessment of student performance for earning credits. Members of a consortium should make internal re-adjustments of work to spare faculty for additional work or employ qualified additional faculty to teach on the programme. The infrastructure of the member institutions may be shared. Appropriate fees may be collected with provision for freeships to those who cannot afford to pay. The University Grants Commission (UGC) may arrange for state funding in such cases.

Some modular programmes may be adopted on week-ends with open access to the public as well. Different modules of varied specialisations may be offered simultaneously to enable students and the public to pursue their diverse interests. This Week-End College may utilize the same infrastructure but the services of high-profile professionals should be utilized for offering specialized courses which are in great demand. These programmes will, of course, be self-funded as well, perhaps a little more expensive than others, as the academic rigour shall not be compromised. The standards kept should be globally comparable and admission should be made purely on merit.

b. Adaptation of the existing best practices to suit situation-specific needs involves more than the temporal and spatial adjustments mentioned above. A curricular cell may be set up to determine choice of additional programmes, tailoring new ones, trying out new combinations and replacing obsolete modules. It may offer academic counselling to stakeholders and offer placement services through campus interviews. It may also provide for the fast learner opportunities to pick up additional credits by doing 'Take-Home' courses. These are courses offered without regular teacher contact but are more challenging than conventional courses of study. A syllabus, a schedule outline and study materials are given for the learner to do periodical assignments and seminars which are monitored by the instructor in charge during a two-day contact programme each month. The final examination is the same as that for others and the evaluation as rigorous.

An institution may seek the services of subject experts to design or modify a course or combination of courses. The department/s concerned may utilize such consultations for inter-disciplinary and other course offers.

The foregoing analysis confirms the positive shift from a static curriculum of the past to a more dynamic and learner-friendly curriculum. It also indicates the betterment

of curricular processes in most HEIs during the past decade. It may be found to encourage opening up many possibilities for HEIs to utilize in order to make higher education quality sensitive and both globally and nationally relevant. It seeks to classify and present the best practices of highly accredited HEIs with suggestions for their adoption or adaptation. However, the categories may overlap and are not mutually exclusive. It is hoped that the insights that NAAC has facilitated HEIs to gain will help raise them to levels of excellence which will be unanimously acceptable to their counterparts elsewhere.

2.7 Conclusion

The best practices presented here are not exhaustive as observed earlier. They are only representative of the different criteria statements. While one may be sensitive to their context specificity and other possible difficulties in borrowing them, one may find nevertheless, that the principle behind each of them together with the institutional/ individual effort in implementation has proved that it has worked. Most of the ten best practices presented here are easily implementable and they do not require much material input except perhaps in the case of one or two. Of course voluntary involvement goes a long way to obtain benefits from these practices. In addition, strategic planning to accommodate the practices in and outside regular work schedules is necessary.

Section B: Case Illustrations

The following ten curricular best practices are a few samples from a larger corpus. Each institution was asked to identify only one or two practices, which they considered to be most contributive to quality improvement. Each one of them qualifies to be called "best practice" under more than one criterion listed earlier in this chapter under section A. They are presented below, according to the common format adopted to highlight the objective the practice seeks to achieve, to describe it, to evaluate it in terms of its impact and success and to identify the resources necessary for others to adopt it. The address of the institution is also given.

Case 1: Field Project for Field Practicum in Social Work

1. Objective of the Practice

Integration of theory and practice in social work curriculum

2. Need Addressed and the Context

Seeks to match experimental learning with cognitive conceptualization

3. The Practice

This envisages matching experimental learning with cognitive conceptualisation by making trainees do problem-focused projects such as dowry, sex exploitation, migrating women, etc. at both micro and macro levels. The unitary approach to an appraisal of human rights issues by social intervention is a part of the practicum. All students are offered placement because of such a curricular orientation. Block placements are not uncommon. The college provides funding to implement the best practice. The UGC has commended this practice and recommended its extension to other social work institutions.

4. Evidence of Success

The practice has been sustained over two decades; the quantum of employment has improved.

5. Resources

Better time management and willingness of faculty to put in extra effort

6. The Institution

Name: College of Social Work
Address : Nirmala Niketan, 38, New Marine Line, Mumbai - 400020, Maharashtra
Ph: 022-22002615, 22067345 (O) Email: colsocwk@vsnl.com
Website: www.nirmalaniketancollegeofsocialwork.org
Year of Accreditation: 2001-2002
Grade awarded by NAAC: A★★★★★ (Five star)
Contact person: Dr. (Ms.) Mary Alphonse, Principal

Case 2: Curricular Internalization of Values

1. Objective of the Practice

Integrated curriculum for value-based education

2. Need Addressed and the Context

Forming values essential for democratic citizenship

3. The Practice

Values essential for democratic citizenship are sought to be imparted through institutionalised internal curricular practices such as celebration of national festivals, promotion of national integration through seasonal festivals (Varsha Mandal) - a programme of celebrating indigenous poetry, arranging lectures and other cultural events on national heroes and leaders - and discussion of social values and issues at rural camps. Activities such as Khadi exhibition complement this curricular aspect. Feedback from schools of teaching practice on this practice is quite favourable.

4. Evidence of Success

This best practice has been followed since 1999. The Peer Team has expressed its appreciation of the practice and it recommends the extension of the same to other institutions. There is a significant change among students towards tolerance and egalitarianism.

5. Resources

Voluntary additional work and extra responsibility; support of the Management in terms of resources.

6. The Institution

Name: Gandhi Shikshan Bhavan's Smt. Surajba College of Education
Address: Juhu Road (North), Mumbai - 400049, Maharashtra
Ph: 022-26200589 (O), 022-26353232 (R)
Email: ushamurugan@hotmail.com
Year of Accreditation: 2003-2004
Grade awarded by NAAC: A+
Contact person: The Principal

Case 3: Credit Based Honours Programme

1. Objective of the Practice

Curricular optimisation for value addition

2. Need Addressed and the Context

Enhancement of curricular options to stretch student potential

3. The Practice

The practice has been successfully implemented over the past 19 years by St.Xavier's College, Mumbai. Selected students (chosen only on the basis of merit) work beyond and outside regular schedules to do extra modules in terms of updated units of syllabi, research, skill-based training, etc., in all the departments. Additional instruction is offered by faculty for a nominal fee ranging from Rs.50 to Rs.200 charged from each student. Students have the freedom to choose the courses and faculty have the autonomy to design the modules they teach. Time management, computer training, research, industrial training and others are among the choices offered. Part of the fees charged from the students is utilized to provide the extra infrastructure needed. A large number of these students are recruited by local industries and other agencies. The demand for the programme has increased from 200 at the beginning to 1000 at present. Many do not qualify to join because of the higher cut off marks prescribed for entry.

4. Evidence of Success

The programme has attracted public commendation and many awards. It has been in vogue for the past 19 years. The increase in demand is considerable. Employment and employability rates have risen.

5. Resources

A nominal fee ranging from Rs.50 to Rs.200 is charged from each student. Willingness of faculty to take additional instructional responsibilities is required.

6. The Institution

Name: St. Xavier's College
Address: 5, Mahapalika Marg, Mumbai - 400001, Maharashtra
Ph: 022-22620661/ 5 (O), Fax: 022-22659484
Email: donde@vsnl.com, Website: www.xaviers.edu
Year of Accreditation: 1999-2000
Grade awarded by NAAC: A***** (Five star)
Contact person: Dr. Sheela U. Donde, Vice-Principal

Case 4: Unnathe (Progress)

1. Objective of the Practice

Enablement of disadvantaged and slow learners

2. Need Addressed and the Context

Self-evolvement of a sound work ethic; and additional support for slow learners

3. The Practice

This is a seven-month course in personality and skill development offered to under-privileged students of the final year degree course between 4.30 and 6.30 p.m. on all week days with the mentoring of 50 students by a co-ordinator. Time management, computing skills, spoken English, confidence building and total development of personality form the course content. No fees are charged from students and no remuneration is paid to teachers. The student strength has increased from 50 to 200. Almost all of them are employed by local industries. There is a significant change in the attitudes of the students who have become more modest and accommodative. The unique feature of this practice is the self-evolvement of a sound work ethic.

4. Evidence of Success

This practice is now followed by some polytechnics and technical institutions. Employers have increased their recruitment from the students trained under this programme.

5. Resources

Industrialists and guest lecturers do honorary work voluntarily. Each teacher contributes a rupee a day and each non-teaching member of the staff 50 paise a day towards this assistance.

6. The Institution

Name: Dr. Ambedkar College
Address: Deeksha Bhoomi, Nagpur - 440010, Maharashtra
Ph: 0712-2525077, 2528083 (O), 0712-2248071 (R)
Email: kumarn14@yahoo.com, Website: www.dacngp.com
Year of Accreditation: 2003-2004
Grade awarded by NAAC: A+
Contact person: Dr. R. Krishnakumar, Principal

Case 5: Holistic Traditional Discipline Through Corporate Living

1. Objective of the Practice

Incorporation of traditional and indigenous values in modern curricula

2. Need Addressed and the Context

Integrating the best of the ancient values in the modern curriculum through organized living

3. The Practice

The college seeks to inculcate in every undergraduate, who is put through modern curricula, a deep sense of the traditional values of the ancient *Gurukula* with the holistic discipline of the hand, the head and the heart. The college with only male *sishyas* and *acharyas* is completely residential. All live on the campus. Physical exercises include yoga, karate and ancient martial arts like *silambam.* Morning (dawn), noon and dusk meditations are regularly observed from 4.40 a.m. to 9.40 p.m. Life is closely monitored. The curriculum of this autonomous college provides for modules which promote the goal and it has also a vocational dimension. Sanskrit teaching occupies an important place. Graduates of the college are largely employed in the state police force.

4. Evidence of Success

The NAAC has assessed this best practice and rated it quite high. The UGC has recognized the college to be a centre to run a refresher course on value education. The practice has been followed since 1971. A large number of students are recruited for demanding placements.

5. Resources

This practice is generally suitable for a residential campus without much extra resource requirement. Infrastructure, adequate faculty, and resources to maintain them are required.

6. The Institution

Name: Vivekananda College
Address: Tiruvedakam West, Sholavandan R.S, Madurai - 625217, Tamil Nadu
Ph: 04543-258234 (O), 04543-2381155 (R)
Email: ilangolevin@yahoo.com
Year of Accreditation: 2002-2003
Grade awarded by NAAC: A
Contact person: Dr. R. Ilango, Vice-Principal

Case 6: Industrial Presence on Campus vis-a-vis Academic Presence in Industry

1. Objective of the Practice

Industry-institution integration in curricular programmes

2. Need Addressed and the Context

To provide study cum work experience in the premises of a company

3. The Practice

This provides attempts to concretize industry-institution links in Management studies through innovative strategies. Students selected on the basis of established requirements of merit and experience are given management development courses of varying durations in the premises of the company. The same are offered through the distance learning mode as well. The three year degree programme is equivalent, in curricular content and practice, to those of an MBA degree and the certificates and diplomas also maintain high standards. The second strategy is that of switching places, for the span of a trimester, between the Manager of a company and a member of faculty who both teach in different environments for their mutual benefit. The third strategy is that of designing and offering need-based academic programmes. The new MBA (Tech) - which attracts 100 times the number of intake (90) (10,000 applications are annually received) - and the Ph.D. programmes are some instances. This best practice was initiated in 2001.

4. Evidence of Success

Huge demand from the students for the courses and increase in the employment rates are evidences of the success of this practice.

5. Resources

MoU with industry; competent and experienced faculty; adequate equipment and space; flexible administrative policy

6. The Institution

Name: Narsee Monjee Institute of Management Studies
Address: Vile Parle (W), Mumbai - 400056, Maharashtra
Ph: 022-26134577, 26183688 (O) 022-26320144 (R)
Email: cms@nmims.edu; cms@bom2.vsnl.net.in
Year of Accreditation: 1999-2000
Grade awarded by NAAC: A★★★★★ (Five star)
Contact person: Prof. N M Kondap, Vice-Chancellor

Case 7: Semester-in-India Programme for Overseas Students

1. Objective of the Practice

Globalization of curricular and faculty services; and exposure of students to inter-cultural experience

2. Need Addressed and the Context

Student exchange programme at the global level; inter-cultural interaction on campuses; and achieving curricular parity with overseas institutions of repute.

3. The Practice

A three-month academic programme is offered by the faculty of Madras Christian College with the additional help of outstanding scholars, bureaucrats, exponents of performing arts and other men and women in public life (who offer guest lectures) for the benefit of 25 to 35 students of some of the best colleges and universities of the USA including Harvard. The programme is sponsored by Davidson College, North Carolina which assembles them. It includes lectures on Indian themes, such as rural development, agriculture, women, performing arts (*Bharathanatya*), elections in India, defence, temple architecture, etc. Distinguished alumni and alumnae who are eminent men and women in public life have interacted with the students. The college frames its own curriculum and faculty supervise and assess their work before they earn credits in the departments where they do the courses and the projects. The programme

concludes with a tour of the rest of India organized by the college. Students often stay in staff residences as guests and are accommodated into the Indian cultural environment and food habits. The programme has encouraged faculty to write books on temple architecture, Sanskrit literature and other areas of Indology.

4. Evidence of Success

It has been in practice for the last 20 years, being operated every alternate year. Overseas agencies want to sustain the programme. More of them want to become partners. The interaction between students of the college and the visitors has been mutually enriching and beneficial.

5. Resources

Sponsorship by the visitors, international guesthouse on campus, willingness of faculty and institution to put together a sound curriculum for a specific need

6. The Institution

Name: Madras Christian College (Autonomous)
Address: Tambaram, Chennai - 600059, Tamil Nadu
Ph: 044-22390675 (O), 044-22275086 (R)
Website: www.madraschristiancollege.com
Year of Accreditation: 2003-2004
Grade awarded by NAAC: A+
Contact person: Dr. V. Rajagopalan, Co-ordinator

Case 8: Curricular Restructuring

1. Objective of the Practice

Cafeteria Remodelling of Curriculum for Women Empowerment

2. Need Addressed and the Context

To enable women school dropouts to pursue university education

3. The Practice

The university has recently attempted an extensive cafeteria remodelling of curricula for women empowerment through semesterisation and adoption of the Choice-Based Credit System. The M.A. (composite) Degree which seeks to enable students to pick

up credits from different departments to make a composite degree; the value-added rural development programme offered under extension (which includes the aim of educating rural women and families on practical maternal and paternal roles); the university entrance test for students who have completed standard X which enables dropout girls to pursue university education; and a wide range of inter-disciplinary practices are among the innovations tried out.

4. Evidence of Success

Co-operation among faculty has improved.

5. Resources

Human resources to offer adequate number of course options and additional infrastructure to accommodate more classes

6. The Institution

Name: S.N.D.T. Women's University
Address: 1, Nathibai Thackersey Road, Mumbai - 400020, Maharashtra
Ph: 022-22031881 (O), 022-26205927 (R), Email: sndt@bom2.vsnl.net.in
Year of Accreditation: 1999-2000
Grade awarded by NAAC: A★★★★★ (Five star)
Contact person: Prof. Rupa B. Shah, Vice-Chancellor

Case 9: Replacement of General English with Functional English

1. Objective of the Practice

Enhancement of communication skills

2. Need Addressed and the Context

In-depth training of undergraduates to shape their total personality by developing skills of communication in English

3. The Practice

Unlike making functional English a part of the core (as done under the UGC vocational scheme) the present practice encourages a more comprehensive and in-depth training of undergraduates in interview, group discussion, public speaking and other skills

which promote personality development, by modifying the curriculum so as to give wider room for the activity. General English has been replaced by Functional English in Part II of the syllabus. Appropriate text books and matching workbooks are prescribed. The multimedia system available with the Department of English is a helpful resource and students have free access to the internet.

4. Evidence of Success

The university has adopted the syllabus of the college. The visible improvement of students' communication ability in English has recorded a widespread acceptance of the graduates of the college for employment.

5. Resources

This practice requires considerable initial investment and recurring expenses. The multimedia equipment of the department is a helpful resource. Moreover, technology, including a language laboratory are required. Competent teachers of English who can impart spoken and written language skills are indispensable.

6. The Institution

Name: Parvathaneni Brahmayya Siddhartha College of Arts & Science (Autonomous)
Address: Siddhartha Nagar, Vijayawada - 520010, Andhra Pradesh
Ph: 0866-2475966(O), Fax: 0866-2490183
Email: pbs_college@rediffmail.com
Website: www.pbsiddhartha.ac.in
Year of Accreditation: 2003-2004
Grade awarded by NAAC: A
Contact person: The Principal

Case 10: Regrouping of Courses to Provide New Subject Combinations

1. Objective of the Practice

Curriculum re-structuring to accommodate student choices in subject combinations

2. Need Addressed and the Context

Students do not like some subjects which are forced on them on account of the prevalent conventional subject combinations. There is a tendency among students to

avoid subjects which they do not prefer generally. This has resulted in undesirable trends such as fall in attendance in some subject classes, failure in exams, and general irregularities. There is a need to address this problem.

3. The Practice

The college has regrouped subjects so as to accommodate choices which meet students' likes and preferences. This has helped to circumvent the problem of fall in attendance.

4. Evidence of Success

Positive response from students; rise in attendance and success rates; improvement of general discipline

5. Resources

Voluntary staff assistance and team work are required.

6. The Institution

Name: Osmania University College for Women
Address: Koti, Hyderabad - 500095, Andhra Pradesh
Ph: 040-4657816 (O)
Fax: 040-4737692
Year of Accreditation: 1999-2000
Grade awarded by NAAC: A★★★★★ (Five star)
Contact person: Dr. B. Sulochana Reddy, Principal

Chapter III

Best Practices in Teaching-Learning and Evaluation

Soch H S
Shyamasunder M S

3.0 Pedagogy is by far the most indispensable factor in the success of an educational effort. The teacher-dependant pedagogy of the past has to necessarily become learner-centred because of (a) the need of the learner to face the challenges of a more competitive and complex world than before and (b) also because of the advancement of technology which has made available several devices for the teacher to actively use for the benefit of the learner. The paradigm shift from teacher-dependant protective learning often manifested in reproduction of ideas borrowed or stored, to learner-centred independent inquiry is a welcome change. It is greatly facilitated by sharing a large quantity of information at the quickest possible time through information technology (IT) devices such as the internet. The way our institutions are coming to terms with these is remarkable. And that is what the best practices enumerated in this section are about. It must be remembered however, that hardware cannot replace humanware. It is a tool made effective or ineffective according to the presence or absence of the imagination and resourcefulness of the learner-teacher partnership. In this chapter Section A deals with the framework outlining the new paradigm and Section B lists some of the best practices found useful by some of the best higher learning institutions of this country.

Section A: Framework

3.1 Introduction

In our country, in the ancient days, "Vidya" or education was considered to be 'the third eye' of man, which gave him insight and mental strength. There is a common saying in India "*Swadesh Pujyate Raja, Vidvam Sarvatra Pujyata*". It means that the king's respect is limited to his own kingdom whereas a learned man is respected everywhere. 'Vedas' also meant "education". One of the six systems of Indian Thought, viz., *Nyaya* is based on the premise that salvation is attained through knowing the true knowledge. In the holy *Quraan*, the first soora '*Aqraa*' also symbolizes education. *Adi Granth,* the holy Scripture of the Sikhs, says that he who philosophises education is a person who becomes the top saviour of society. It is thus not difficult to conclude

that religious scriptures have highlighted the importance of education right from the ancient days.

The opening lines of the Education Commission 1964-66 report again emphasizes the value of education: "The destiny of India is now being shaped in our classrooms. This, we believe, is no mere rhetoric. In a world based on science and technology, it is education that determines the level of prosperity, welfare and security of the people. On the quality and number of persons coming out of our schools and colleges will depend our success in the great enterprise of national reconstruction."

In the words of William Lyon (1970): " In my mind, teaching is not merely a life work, a profession, an occupation or a struggle, but a passion. I love to teach as a painter loves to paint, as a musician loves to play, as a singer loves to sing, and as a strong man rejoices to run a race".

On the quality of education, a policy perspective (1985) entitled '*Challenges of Education*', it is said that "it is difficult to define quality, particularly, with reference to educational process. However, it could be stated that a quality-conscious system could produce people who have the attributes of functional and social relevance, mental ability and physical dexterity, efficacy and reliability, and, above all, the confidence and the capability to communicate effectively and exercise initiative and make innovation and experimentation with new situations. To these personal attributes, one could add the dimension of a value system, conducive to harmony, integration and the welfare of the weak and the disadvantaged."

The structure of teaching consists of three variables which operate in the process of teaching and create learning conditions for different situations. Firstly, the teacher is an independent variable, as he plans, organizes, leads and controls teaching. Secondly, the students are a dependent variable, since they are required to act according to the planning and guidance of the teacher. Thirdly, the intervening variable is the content and strategy of presentation which leads to interaction between the teacher and the taught. These three functions are performed by teaching, i.e. diagnostic, prescriptive and evaluative functions.

The Teaching-Learning process has four components: teacher, student, learning process and learning situation. Teaching and learning are interlinked. Teaching remains central to both learning and evaluation. There is an inter-relatedness between teaching objectives, learning experiences and evaluation. Evaluation is a process of determining the extent to which an objective is achieved; the effectiveness of the learning experience provided in the class room; and the accomplishment of goals set.

There are three phases of the teaching process: (i) proactive phase; (ii) interactive phase; and (iii) post-active phase. In the proactive phase, the teacher formulates instructional objectives, decides the curriculum, employs the pedagogic technology and stimulation strategies. In the interactive phase of teaching, the teacher provides pupils verbal stimulation of various kinds, the operations involved being determination of the exact dimensions of behavioural changes using appropriate testing devices and thereafter planning units of syllabi and methods of teaching.

It is difficult to measure teaching effectiveness but it is easier to measure learning effectiveness, which, actually, is the true reflection of teaching effectiveness. Learning conditions are basic to understanding the concepts taught.

There are five important purposes and functions of evaluation: (i) diagnostic, (ii) proactive, (iii) selective selection, (iv) grading and counselling; and (v) motivation to learning. Two categories of evaluation techniques that could be followed are: 'the quantitative technique' which includes oral, written and practical techniques. The 'qualitative technique' comprises cumulative record, anecdotes, observation, check list and rating scales.

Educational technology is broadly classified into three forms: hardware approach, software approach and system analysis. Hardware approach includes the radio, television, tape-recorder, video tape, computers, etc. These are used as aids for teaching and instruction. The teaching machines are exclusively designed for teaching purposes. These are used to present programmed instructional material. These machines should not be confused with audio-visual aids. Audio-visual aids are used to make the presentation interesting and effective. These may provide some motivation to learning. Teaching machines include the whole process of stimulus response. In the learning process feedback and reinforcement devices are used in the teaching process and simultaneously in the use of teaching machines.

The software approach is also known as instructional technology. In this technology, the teaching-learning principles are applied in order to motivate behaviour. This view is closely connected with the modern principles and theory of instruction and principles of programmed learning. The first, hardware approach, is concerned with teaching aids, like teaching machines and the second with learning aids, like programmed learning.

The third approach is instructional designs. It is a new management approach. This technology is also known as system analysis. This technology covers three instructional designs, viz., training psychology, theory of reinforcement and system analysis.

3.2 Criteria of Best Practices

On the strength of the available literature in the subject of teaching, learning and evaluation and on the basis of discussions on the topic, the following constructs in teaching, learning and evaluation have been worked out. They provide the rationale of the criteria for deciding the best practices in higher education.

(1) Teaching Faculty Personality

The teaching effectiveness is linked with the human touch of learning. As such, the personality component of the teaching faculty becomes extremely important in the assigned task of disseminating knowledge and thereby developing the all-round personality of students. It could be further gauged from the following sub-constructs:

(a) numerical strength of teachers vis-a-vis number of students;
(b) subject-wise pupil-teacher ratio;
(c) academic strength of the faculty, blend of age and youth (The professional satisfaction of teachers is very important from the point of view of their mental health, which plays an important role in the personality development of students);
(d) inter-personal relationship among faculty members;
(e) harmonious relationships among teachers, students, community / parents and the management; and
(f) policy of recruitment of teachers which should help in picking up the best among applicants.

(2) Admission Policy:

The institutions of higher learning are: government institutions; denominational grant-in-aid institutions; private grant-in-aid institutions; non-government un-aided institutions; and minority status institutions. Though the admission policy will vary in all these institutions, yet it is important that transparency in the admission process is observed and that these are made in consonance with the law of the land and State policy.

(3) Preparation of Teaching Plan:

(a) unitization of syllabi;
(b) distribution of curriculum vis-à-vis number of lectures;
(c) strategies to be evolved in teaching;
(d) comprehensive teaching plans;
(e) record of teaching, daily diary, etc.

(4) Knowledge of Pedagogical Teaching Technology:

(a) competence of teachers to handle different methods of teaching;
(b) expertise in handling the tools of teaching including teaching machines;
(c) capacity of teachers to produce of audio-visual aids; and
(d) expertise of teachers in the use of e-media and computer- aided packages.

(5) Reading Habits of Teachers:

(a) reading habits of teachers as observed through the use of the library based on the frequency of use during the past three years as recorded by the library;
(b) availability, on the stacks, of the latest books on subjects
(c) average amount spent by the teachers annually on purchase of books; and
(d) the use of internet in down-loading the latest reading materials for enhancing pedagogic knowledge and improve skills in the use of education technology.

(6) Teaching Process:

(a) use of the lecture method;
(b) combination of lecture method with other teaching methods;
(c) competence in the use of the black-board and other teaching aids;
(d) promotion of active listening in the classroom by teachers and students;
(e) competence of teachers to design enrichment and remedial programmes for advanced learners and slow learners, respectively;
(f) competence of teachers to identify and group students according to ability, need for remedial coaching, potential for peer teaching-learning and group learning;
(g) competence of teachers to play the role of group leader/ facilitator/ provider of group structure vis-à-vis types of learning tasks; and
(h) competence of teachers to solve problems arising out of the gap between lecturing and its impact e.g. the short attention span of students, inaudibility of lecture, dependence on rote learning, absence of social interaction, scope for limitless boredom, etc.

(7) System of Evaluation:

(a) information about the evaluation programme given to students at-least a month before admission;
(b) policy of internal assessment;
(c) weekly, monthly and quarterly tests;
(d) transparency in evaluation;
(e) awarding marks / scores / percentile score;

(f) providing transcripts to students at the terminal stage of the career vis-à-vis the college / university;
(g) teacher's full understanding and use of various evaluation techniques;
(h) preparation of question banks; and
(i) evaluation to be made a tool of motivation to learning.

(8) Faculty Evaluation:

(a) assessment by Head of the Department (HoD) and Principal;
(b) evaluation by peers;
(c) evaluation by outgoing students through a structured questionnaire on a 5-point scale and through an open-ended questionnaire. This structured questionnaire should definitely reflect the following components of the teacher assessment:
    (i) evaluation of teacher performance by the students who have recently completed their undergraduate or postgraduate programme with special reference to teaching attributes, knowledge, academic qualification and research qualification
    (ii) steps taken by the teachers for improving their subject knowledge
    (iii) evaluation of the four components of teacher's authority, viz., social authority, subject authority, professional authority and charismatic authority

3.3 Description of Best Practices

1. Some colleges have a week's orientation for teachers to the use of the latest pedagogical teaching technology including audio-visual aids and teaching machines. Further, they are encouraged to discuss their problems arising out of the use of the above.

2. Quite a good number of colleges hold departmental meetings of teachers to prepare teaching plans to be spread over the year. Mostly, the syllabi are unitized according to the number of terms during the programme whereas more comprehensive teaching plans need to be prepared.

3. Prospective students are also guided in the selection of subjects to be taken by them for their undergraduate programme. In this context, their aptitude and academic merit are kept in view.

4. Colleges that observe transparency in admission are highly appreciated by students, parents and the society at large. The admissions made on merit and statutatory reservation are always appreciated.

5. Most good colleges organize a week's programme for students to introduce them to various college activities through the year. They are informed about the rules and regulations of the college, rules for the use of the library, and of the terminal and the final university examinations. They are also informed of the availability of scholarships, loans and other financial assistance. A college has distributed to students a booklet entitled *Effective Study Habits*.

6. Some colleges conduct post-entrance diagnostic tests to assess the aptitude of students. They are assessed by teachers through frequent interactions. Such a practice helps teachers to classify students into different groups for providing the required kind of academic tasks.

7. Some colleges evolve a 'Class Guide and Mentor System' whereby each teacher is assigned about 20 students. The teachers / tutors look after the academic programmes of their students and also give them educational-cum-personal guidance. They have regular meetings with their wards normally once a month.

8. Each faculty member maintains a teacher's diary required to be filled up every day. It helps ensuring quality of teaching and accountability on the basis of the norms laid down by the state government and the UGC. In some colleges, teachers are required to prepare and submit in advance, unitized teaching plans to the Heads of Departments and the Principal. Subsequently, the Principal ensures that the teaching work goes on in accordance with the plan prepared.

9. Teachers are encouraged to promote innovative pedagogy. Simulated teaching and micro level teaching are practised by some teachers and the same are reviewed, and evaluated through discussion by staff, the HoD and the Principal.

10. A centralized media facility is available in some colleges to augment and support the teaching learning process. Audio-visual equipment, such as over-head projector (OHP), slide projectors, models, charts, liquid crystal display (LCD) and teaching machines are made available.

11. Learner-centred teaching methods such as group work, role play, project work, field visit, case study, debates, etc. supplement classroom teaching. In addition, modern tools of teaching are also employed for making teaching learning more effective.

12. Some colleges have established language and commerce laboratories. The language laboratory is found useful to develop communication skills and also to teach different groups of students simultaneously according to their abilities. The commerce laboratory helps students to gain practical knowledge in banking

and other businesses. Management and accountancy related documents are also kept in the laboratory.

13. Self-learning through books and journals, internet, CD-ROMs and computer assisted learning packages is encouraged.

14. It is also seen that faculty members prepare their own visual and teaching aids and make liberal use of OHP, LCD, projector, computers, etc. The facilities of reprography, internet, multi-media, CDs and video cassettes are made available in the library which go a long way to supplement the lecture method.

15. Some colleges make some innovative approaches to teaching-learning processes such as e-group and phone-groups for assignments and projects. Extensive use of e-mail is made for different groups.

16. The preparation of the enrichment programme for advanced learners and remedial teaching to slow learners goes a long way to improve learning. Advanced learners are helped by providing extra handouts / reading material and are encouraged to consult reference materials and websites. Postgraduate students of commerce are also similarly encouraged in order to promote the practice of forming voluntary quality circles where teachers act as facilitators.

17. A notable practice is the formation of Peer Study Groups consisting of strong and weak students in which the better performers help slow learners in their studies. Such peer learning benefits students much better than conventional teaching.

18. Field trips, educational trips, projects, surveys, seminars at departmental and institutional levels and guest lectures by experts from outside help students to develop the ability to learn on their own. Diverse teaching methods are used including focused group discussions, brain storming sessions, role plays, games, case discussions, home assignments, etc.

19. A unique feature of the learning process in a college is the required undergraduate project study programme.

20. Tests, assignments, term papers, learning projects, enrichment classes, and prompt evaluation of college tests and examinations are pointers of sustaining quality. Results are intimated to parents regularly.

21. Corrected answer scripts of tests and terminal examinations are returned to students and discussed in classes and this has improved the rapport between

teachers and students. Such a transparency facilitates effective teacher-student interaction.

22. Examination work is computerized, and it has speeded up the process. Some colleges declare results within a month after the examinations are held.

23. Objective-type tests, group discussions, oral presentations, open book tests and routine tests are employed in order to make assessment more skill-oriented.

24. The performance of the teaching faculty is evaluated by students by means of a Teacher Assessment Questionnaire and feedback is obtained by the Principal through the Students' Council. In addition, as per university rules, teachers are required to fill in the self-assessment form at the time when the staff member is due for placement in a higher scale.

25. Teachers are given confidential feedback about their teaching effectiveness on the basis of an institutionalized mechanism of evaluating them. There is a scientifically designed Training Effectiveness Evaluation Model. This model is based on many variables and constructs that would determine effectiveness of teaching.

3.4 The Impact / Outcome

The best practices selected above have already proved to be instrumental in raising the performance level of certain institutions to that of a five star or A grade. It cannot be said that these higher grades were based on the criterion of Teaching, Learning and Evaluation listed above. Nevertheless the NAAC has given the highest weightage (around 40% for affiliated colleges) among its parameters for obvious reasons. It is equally true, however that this criterion is linked with others as well.

It needs to be kept in view that the quality of education and excellence of an institution is directly linked with the quality of output of its graduates in different spheres. Every institution is known for its personality, thrust areas and quality of teaching; they bear a distinct stamp. It is, therefore, important to improve the standard of teaching, learning and evaluation. It also needs to be remembered that less financial input is involved in the implementation of these best practices in terms of purchase of costly equipment when compared to the cost of infrastructure, equipment, playgrounds, learning resources, salaries and other expenses. Adopting these practices is not difficult. Teachers feel that modern teaching technology need to be used to improve the effectiveness of pedagogy. Such motivation may be exploited by making the equipment available. Moreover, they need to be trained in using these pedagogical

teaching instruments and be made conversant with various new teaching methods to be employed.

3.5 Requirements for Adoption and Adaptation

The best practices listed here were taken from the reports of the National Assessment and Accreditation Council, vis-a-vis assessment and accreditation of top grade institutions of higher education, both colleges and universities. As such, there should be no problem in the adoption of these practices. These practices basically involve the teaching fraternity. There is no outside agency involved in them. Therefore, the effort of teachers to initiate them has few impediments to overcome.

It is to be remembered in this context that the lecture method continues to dominate the scene of higher education in the country, with the result that it ceases to motivate and inspire students to learn. At the same time, there is a strong realization among teachers that pedagogy should be learner centred. They agree that teaching does not aim at rote learning, or mere comprehension but at effective learning involving application of mind and competency of communication. Audio-visual aids, and teaching machines will help in addition to generate greater interaction between teachers and learners. The use of educational technology cannot however be avoided in this knowledge era brought about by Information Technology.

In addition, certain small changes implemented by the educational institutions will help the learning climate. These steps could be:

(i) The lecture rooms may preferably be of the gallery type. The lecture rooms of science blocks need to be designed and furnished according to subject requirements. Also, the sliding black or white boards are more facilitative than fixed boards.

(ii) There should be a provision for teaching aids and teaching machines with every department. However, where it is not possible, a central facility could be created for teachers of all departments for their classroom use.

(iii) Teachers should be given orientation in student counselling. It will be important for them to know the socio-metric and psycho-metric techniques to identify different categories of students.

(iv) There has to be some kind of mechanism by which students could be motivated, vis-a-vis, the accomplishment of completing the undergraduate or the postgraduate programmes to avoid dropping out in the middle. Particularly, it is seen that in rural educational institutions, the dropout rate is high.

It is clear from what has been said above that none of these practices requires big financial support. The basic requirement is the attitude of the teacher who can easily produce audio-visual aids. Teaching hardware may be obtained with grants from the UGC and other bodies.

3.6 Conclusion

Teaching, learning and evaluation, the vital and crucial academic activity of any educational institution require meticulous planning and responsible execution chiefly through team work and coordination. Where any one of these receives inadequate attention, the other two may fall away bringing the whole educational efforts to little or no value. In the light of this caution, we may look upon these best practices as signposts that lead towards the goal of excellence to be reached only through quality enhancing measures.

Section B: Case Illustrations

The best practices selected for presentation here touch upon some vital areas of pedagogy. Learner centred concerns in attending to the needs of the slow learner, student assessment of teacher performance, tutor-ward partnership, overall structuring of the system to speed up student enablement processes and use of modern technology are some vital areas of concern. While there may be several others - the list is not exhaustive - most of those presented here are important to trigger motivation for improving existing practices and to encourage initiative to think along new directions. The focus on learner-centred pedagogy that can build skills of self-management of learning processes by learners shall never be lost sight of.

Case 1: Institutional Co-ordination for Teamwork

1. Objective of the Practice

To provide quality education to students, especially the first generation learners, by streamlining and coordinating institutional components

2. Need Addressed and the Context

The college receives more students from rural areas. Many are first generation learners and slow learners. There is a need to motivate and develop them by applying the latest technological developments particularly, the information technology.

3. The Practice

The practice is one of institutional coordination for reinforcing teamwork. This is facilitated by transparency in admission, dissemination of academic information to the student body at the appropriate time and preparatory pedagogic planning. These strategies have improved work ethics and work efficiency. This is perhaps more a strategy than a practice. It may be considered the practice of several practices coordinated at a given time. The practice has facilitated the development of media materials to motivate slow learners and integration of methods like fieldwork, internship training and regular conduct of seminars.

4. Evidence of Success

There is more demand for admission now. Over the past 19 years, the college has obtained as many as 403 university ranks. Pass percentage is more than 90% in university exams. The regularity of co-curricular activities, motivation for better performance by students in examinations and faculty achievement in research would not have been possible without this practice.

5. Resources

Language laboratories, e-learning facility, computer aided packages and psychology laboratory are required for which contribution from the Management and fee collected from students have been used.

6. The Institution

Name: Cavery College for Women
Address: Annamalai Nagar, Tiruchirappalli-620018, Tamil Nadu
Tel: 0431-2751232 (O), 0431-2767606 (R)
E-mail: caverycollege_cry@rediffmail.com
Year of Accreditation: 2003 - 2004
Grade awarded by NAAC: A
Contact Person: Dr.Sujatha, Principal

Case 2: Mentoring System for Students

1. Objective of the Practice

To minimize dropouts through personal counselling

2. Need Addressed and the Context

Students undergo various problems of stress. Statistics reveal increasing number of suicides and dropouts. Considering the student-teacher ratio in classrooms, it is impossible at times to give personal attention to students in class. One solution therefore is a 'Mentor' who can form the bond with students in the true sense. Mentoring is required for students to achieve emotional stability and to promote clarity in thinking and decision making for overall progress.

3. The Practice

The practice is that of creating an efficient mentor-ward system. Each teacher is assigned 10-12 students. They meet at least once a week to discuss, clarify and primarily to share various problems which may be personal, domestic, academic, etc. The teacher is equipped with all the necessary information about his/her wards on a file. The teacher involves local guardians and parents as well, whenever necessary.

4. Evidence of Success

It is needless to say that a mentor gets the job satisfaction. Evidence of success of the practice includes better results in the examinations, more regular attendance, increased participation in co-curricular activities, better discipline on campus and respectful relationship between teachers and students.

5. Resources

This practice requires well-committed teaching staff who have the desire to help students beyond teaching hours.

6. The Institution

Name: PES College of Arts & Science
Address: P.O. Box no 3, Farmagudi, Goa - 403 401
Tel: 0832-2335171 (O), 2318485 (R)
Year of Accreditation: 2001-2002
Grade awarded by NAAC: A*** (Three star)
Contact person: The Principal

Case 3: Fieldwork

1. Objective of the Practice

To develop among students the sense of working together in a team and the skill to carry out a team project in the field

2. Need Addressed and the Context

Theory sometimes remains incomplete unless it is brought into practice. Hence students are required to acquire the knowledge of application. One of the ways to acquire this skill is by taking up team projects on the field.

3. The Practice

Students are divided into small groups of 8/10 each. A designated teacher takes them to the places like jail, remand home, home for destitute, working women's hostel etc. Each group is assigned a topic of social relevance. The group prepares a questionnaire to collect data for the given project and accordingly collects the data. Certain groups are assigned the task of interviewing people. They submit the results of their analysis and report to the teachers concerned. A project report is prepared by each team.

4. Evidence of Success

Students came out with original responses. Team-work and enthusiasm prevail in most areas.

5. Resources

Public contacts and leadership of teachers as well as financial resources and transport are required.

6. The Institution

Name: The Janata Shikshan Mandal's Devchand College
Address: Arjun Nagar, Kolhapur, Maharashtra
Tel: 08338-620112 (O), 02325-244117(R)
E-mail: ago1852@yahoo.co.in
Year of Accreditation: 2003 - 2004
Grade awarded by NAAC: A
Contact Person: Dr. Joshi A. G, Principal

Case 4: Widening Access to Higher Education

1. Objective of the Practice

To make education available to all irrespective of their social and economic status

2. Need Addressed and the Context

The institution has a large number of students from marginalized sections. The need is to give them access to higher education at low cost.

3. The Practice

The institution has set for itself the motto of 'Education for All'. In accordance with its belief in the principles of social justice it admits poor and underprivileged students in excess of the government quota of reservations for disadvantaged categories. The proof of the transparency in widening access is demonstrated through publicly displaying the of selected candidates lists. The State government's order on the required reservation policy on admission is strictly adhered to. The college hostel also provides affordable boarding and lodging facilities to these students.

4. Evidence of Success

A large number of students from marginalized sections are studying in the college. Students who have benefited from this practice occupy positions of power and responsibility.

5. Resources

Monetary assistance to conduct remedial courses for poor students who need the help so that they can get through language examinations. Assistance is also required to conduct add-on courses so that the employability of these students can be enhanced.

6. The Institution

Name: V.O. Chidambaram College
Address: Palayamkottai Road, Tuticorin - 628 008, Tamil Nadu
Tel: 044-2390119 (O), 044-2390414 (R)
Year of Accreditation: 2003 - 2004
Grade awarded by NAAC: A
Contact Person: Dr. A. Francis, Principal

Case 5: Incentives for Holistic Quality Performance

1. Objective of the Practice

To gear up institutional machinery for optimal all-round performance

2. Need Addressed and the Context

The needs of learners are complex and they cannot be met unless measures are taken to study and analyze them and to create an atmosphere of motivation as well as timely performance in every area of activity. The need addressed is that of providing effective and timely services, be they teaching or remediation or effective learning.

3. The Practice

Recognition of the good work of students, faculty and non-teaching staff through awards; implementation of the "earn and learn" scheme for the benefit of poor students; promotion of team work and participatory decision making; coaching classes for taking competitive examinations; personality development; and monitoring as well as assessing teacher performance as a student-motivation generating strategy are the elements of this composite best practice.

4. Evidence of Success

Some of the practices mentioned above have resulted in the rapid growth of the college. The college has a record of consistently excellent results with many university rank holders. Alumni have excelled in various fields. Teachers have received various awards. Demand for admission is increasing. The system adopted by the college is recognized as a role model by the community and the state government and the practice has come to be known popularly as Shahu Pattern/ Latur Pattern.

5. Resources

Institutional coordination, optimum infrastructure and funds

6. The Institution

Name: Rajarshi Shahu College
Address: Chandranagar, Latur - 413 512, Maharashtra
Tel: 02382-253645, 210359 (O), 02382-245380 (R)
E-mail: rlkavlersml@rediffmail.com
Year of Accreditation: 2002-2003
Grade awarded by NAAC: A
Contact Person: Dr. R. L. Kavle, Principal

Case 6: Value Education

1. Objective of the Practice

To impart values

2. Need Addressed and the Context

Total personality development is needed to lead an upright life in a world of discrimination. Tolerance, cross–cultural outlook, and social awareness are corollaries to the need stated.

3. The Practice

The practice consists of enhancing knowledge of values with campus instruction and exposure to realities in the world of deprivation during field visits. The combination of the two is expected to generate motivation for service. Weekly value education classes, guest speakers and interaction with non-governmental organizations have been introduced. Field experience through visits to orphanages, old age homes, and remand homes, are integral to the practice.

4. Evidence of Success

Students have become aware of the condition of the downtrodden. They have become compassionate, understanding and supportive to the disadvantaged groups of society.

5. Resources

Transport, willing staff and some funds

6. The Institution

Name: Mount Carmel College
Address: 58, Palace Road, Bangalore-560 052
Tel: 080-22261759 (O), 080-22263459 (R)
Website: www.mountcarmelcollegeblr.org
E-mail: mounts@bgl.vsnl.net.in
Year of Accreditation: 1999 - 2000
Grade awarded by NAAC: A★★★★★ (Five star)
Contact Person: Rev. Sr. Jesuina, Principal

Case 7: Teacher-Ward Tutorial System

1. Objective of the Practice

To enable the high achievers to reach excellence and the slow learners to reach the minimum qualifying level

2. Need Addressed and the Context

An average Indian classroom has students of mixed ability. The brighter students are often left without challenges to employ their full potential. The poor achievers do not have even the minimum skills to cope with the demands of the course of study. From this context arises the need to level proficiencies and offer appropriate help for holistic development. This need is addressed by the practice.

3. The Practice

Each teacher identifies high scorers and low scorers. Each staff takes at least 2-3 low achievers as his or her wards under sustained supervision and care to assist them to improve their performance. High scorers are also given help to became equipped to get university ranks. The college Career and Guidance Cell and faculty help students in their plans for future development and careers.

4. Evidence of Success

Last year the college achieved 131 university ranks. The percentage of passes in some departments was 100% and more than 80% in others departments.

5. Resources

Willing teachers and material resources for the preparation of additional instructional materials

6. The Institution

Name: Justice Basheer Ahmed Sayeed College for Women
Address: Teynampet, Chennai - 600 018, Tamil Nadu
Tel: 044-24350395, 24364152 (O), 044-23740107, 23742923 (R)
E-mail: jbasinet@md2.vsnl.net
Year of Accreditation: 1999 - 2000
Grade awarded by NAAC: A***** (Five Star)
Contact Person: Dr. Salma Salahuddin, Principal

Case 8: Differential Streams for Teaching English

1. Objective of the Practice

To enhance the communication skills of students of different social groups

2. Need Addressed and the Context

To address the deficiency in student communication skills resulting from earlier education obtained through vernacular medium and from neglect of language skills during school education in general. This gains importance in the context of the college policy that encourages admission of economically poor students.

3. The Practice

All the first year undergraduate students are expected to take a diagnostic test in English. Based on their performance students are categorized into "A" stream, consisting of advanced learners, "B" stream, consisting of average learners and "C" stream consisting of below-average learners. The course contents for the different streams are designed in such a way that they meet the needs of the respective groups of students. Remedial classes are conducted for the C and B stream students in the after-noons on all weekdays. Students are evaluated regularly in both written and oral communication skills. Based on their performance, the poor achievers are given additional attention. At the end of the academic year students are expected to give evidence of their improved communication skills through individual presentations or plays or poems, etc.

4. Evidence of Success

The poor achievers who lacked self confidence and did not have effective communication skills on entry into the college and have undergone the new English learning programme are able to find themselves part-time jobs during their second year of stay in the college. This is mainly because of their enhanced communication skills in English. Every year, about 250 students get part-time jobs. This is in addition to about 300 final year graduates finding good job placements through campus interviews.

5. Resources

Financial assistance is obtained from Foundation for Academic Excellence and Access (FAEA) of the Ford Foundation.

6. The institution

Name: Loyola College
Address: Nungambakkam, Chennai - 600 034, Tamil Nadu
Tel: 044-28175662 (O), 044-24832058 (R)
E-mail: joejesudurai@vsnl.com
Year of Accreditation: 1999 - 2000
Grade awarded by NAAC: A***** (Five star)
Contact Person: Rev. Fr. A. Albert Muthumalai S. J., Principal

Case 9: Evaluation of Teachers by Students

1. Objective of the Practice

To encourage self-improvement in teaching skills

2. Need Addressed and the Context

Teacher development is not taken seriously because the feedback of stakeholders is seldom obtained. The need addressed, therefore is to provide teachers an opportunity to look at themselves through the eyes of learners.

3. The Practice

Every teacher is evaluated by students based on punctuality, teaching methods, interest in teaching, ability to teach (theory and practical), upgradation of knowledge, response to student problems, participation and co-operation in organizing co-curricular and extra curricular activities, etc. The evaluation is made by means of a questionnaire and the results are statistically analyzed. The Principal of the college discusses the results of the student evaluation of each teacher by meeting the teacher and discussing his/her weaknesses and strengths confidentially.

4. Evidence of Success

The results of the evaluation are not used to victimize the teacher but the Principal and other authorities advise the teacher to improve performance. The teacher also becomes aware of his/her weaknesseses and strengths.

5. Resources

Questionnaires for collecting feedback and computer resource to analyse the data

6. The Institution

Name: PES college of Arts & Science
Address: P.O. Box no 3, Farmagudi, Goa - 403 401
Tel: 0832-2335171 (O), 0832-2318485 (R)
Year of Accreditation: 2001-2002
Grade awarded by NAAC: A*** (Three star)
Contact Person: Prof. G. P. P. Khanolkar, Principal

Case 10: Skill Development in Physical Education with Electronic Media Assistance

1. Objective of the Practice

To produce highly skilled and knowledgeable physical education teachers

2. Need Addressed and the Context

Every educational institution needs a worthwhile and standard physical education person. Therefore the product of the physical education institutions must be of good quality.

3. The Practice

Various strategies are used for disseminating information on effective methods of imparting physical education and development of body skills. Use of visual aids, electronic media and journals on information about best practices elsewhere are a few to mention.

4. Evidence of Success

There is motivation for moving towards innovative programmes. The work ethic has improved and teachers are willing to work overtime. Increase in the skill development of the physical education teacher trainees and job placements in good educational institutions are also evidences.

5. Resources

An audio-visual resource center – state-of-the-art infrastructure

6. The Institution

Name: YMCA College (Autonomous)
Address: Nandanam, Chennai, Tamil Nadu - 600 035
Year of Accreditation: 2002 - 2003
Grade awarded by NAAC: A
Contact Person: Dr. Esther Ranjini, Principal

Chapter IV

Best Practices in Research, Consultancy and Extension

Bhoomitra Dev
Madhusudanan Pillai K N

4.0 The affiliating system has fragmented research and teaching under the assumption that they are mutually exclusive. What is more, ideal research *per se* has been pedestalised as an ivory-tower monopoly and wrongly accorded a status above that of teaching. Hence the segregation of universities and colleges and the foreclosure of efforts to integrate the two. The NAAC is quick to discern the integral connection between research and teaching on the one hand, and between research and extension as well as consultancy on the other. Teaching, extension and consultancy by themselves can be the launching pads of research, as it has been proved the world over in good universities, where research-industry nexus, research-service integration, research-education technology inter-dependence are increasingly reaslised. This synergy is also justified by needs of development in developing countries. Moreover, as there is a simultaneous fast development in all sectors of human activities it will be suicidal for research to stagnate in confinement. This chapter may serve as an indication of such an opening up which is adumbrated in Section A and also a demonstration of the truth articulated in case studies of the best practices presented in Section B.

Section A: Framework

4.1 Introduction

A university, according to Jawaharlal Nehru, stands for humanism, tolerance, reason, the adventure of ideas and for the search for truth. Let us realize that the progress and development of a nation depends on the standard of excellence set by its institutions of higher learning. This is especially true because centres of academic excellence generate creative talents. It is a measure of human development and it speeds up national growth. However, excellence is not democratic, but democracies thrive on excellence; democratizing excellence through adopting best practices brings out quality enhancement and thereby advancement of the society. In our quest for the best practices in research, the age-old "vaccination theory of education" will not work. In this, you "take" a subject. When you have taken it, you "had" it; and since you have "had" it, you are immune and need not take it again, unless, of course, like polio and rabies,

you need "booster" doses. We will have to imbibe the best practices to have research of global standards in order to prove worthy of carrying the very name "university".

Like research, consultancy and extension are also of equal importance. For instance while Louis Pasteur was researching, his new ideas were being taken up and extended to the microbiological industries in France. Moreover, gone are the days when necessity was the mother of all inventions. Paradigm shifts of globalization, liberalization and privatization have now made many inventions celebrated mothers of new necessities. Therefore, successful societies now are those who can adapt themselves to changing lifestyles and technologies. Information, innovative knowledge, creative skills and wisdom have now taken over as the most potent engines for national development. Our competencies in earning consultancies are being measured as the horsepower of such engines of evolution.

In short, creation of such new knowledge, which is needed the most by the society, and its quick communication for the end-users form two important pillars on which the best universities stand. An excellent teacher has to be a good researcher also as he can be abreast of the latest development in his field of specialization and can function as a superconductor for elucidating and transmitting his knowledge to students. In addition, it is also necessary that students and faculty do not confine themselves to their ivory towers of learning, but reach out to address vital societal needs through consultancy and extension. Linkages and interactions with industries and community add relevance to higher education, as they ensure students who pass-out to acquire knowledge to mould them as job providers rather than job seekers.

4.2 Criteria of the Best Practices

4.2.1 Research

The first and foremost criterion for the development of the best practices in research is the appropriate recruitment of the most qualified faculty. A brilliant teacher-researcher alone can provide the best guided tours to the most modern knowledge. Our ancient word "Upanishad" means learning by sitting close to the teacher. In fact, the best educational institution is the one where students and teachers learn and innovate together. For such a suitable learning environment, an appropriate teacher-student ratio is extremely important. Harvard University, one of the foremost seats for the creation and flow of knowledge, was established in 1636 with nine students and one master. Lately, there are about 18,000 degree students and more than 2000 faculty maintaining the teacher taught ratio 9:1.

Control on inbreeding increases the frequency of discoveries. A wide variety of recruitment of teachers from distant centres of learning stimulates others on the

campus to have freshness of outlook. It distinctly enhances the potential for excellence. Recruitment of a new qualified teacher enriches the pool of specialists available on a campus. Quality of original research has a direct relation with the number and variety of available inter-disciplinary areas of pursuit. Twilight zones between different subjects of study have the highest potential for innovative research. As our levels of creativity decline with age, it is also very important that a golden balance is maintained between the old and the young in the faculty.

Lastly, gone are the days when an individual alone could produce the best of research. Teamwork is now required more and more to bring out real breakthroughs in research, especially on the cutting edge. Although nobody can deny that the most important instrument of research is the human brain itself, output of the best of research also depends on the availability of modern infrastructure. Therefore, removal of obsolescence has to be a vigorous and continuous process. An excellent library having the best of built-in practices for an accelerated flow of modern information and knowledge forms the strongest base for promotion of the research culture. It quickly places the faculty on the horizon between the known and the unknown every day.

For seeding, sustaining, monitoring and promoting excellent levels of research, development of able, capable and sensitive administration is also extremely important. Encouragement and motivation of good research is possible by suitable incentives, awards, rewards and public recognition by the administration. Provision of seed money for research, especially for the younger teachers, puts them on the research-highways before it is too late. Administrative support and necessary expertise may also be required by young teachers while submitting good projects to different funding agencies. The best of publications, holding the highest Impact Factors / Citation Indices, need also be rewarded suitably.

Availability of faculty improvement programmes and provision for study leave or sabbatical leave are very valuable. Participation and organization of national and international seminars / workshops also rejuvenate the faculty with fresh inputs of global knowledge.

Interactions with industries provide new avenues for applied research, so essential for every country. Securing MoU with other excellent institutions in India and abroad and development of twinning programmes brings in a quantum change in the ethos, tone and tenor for research.

Establishment of a cell for quality control of research, including periodic peer-reviews, can form a solid criterion as a regular and long-term best practice for excellent research.

4.2.2 Consultancy

Continuous encouragement to offer consultancy not only builds up the reputation of the faculty, but also helps in augmenting institutional corpus, quest for new areas for research, and above all, an added social acceptance.

Criteria for the best practices in consultancy can be:

(a) total amount earned with the practices by an institution
(b) total number of subjects involved in the adventure and
(c) quality of feedback about the efforts from the society.

4.2.3 Extension

Extension activities provide the much needed social relevance to our universities. While the academia share their curricular and co-curricular skills with society, their own social relevance and acceptance also rise for good. It is heartening to find that National Social Service (NSS) and National Cadet Corps (NCC) have brought in a sea change in the extension activities of a large number of institutions.

Criteria for the best practices in extension can be:

(a) awards received by the students in their NSS and NCC activities;
(b) variety of activities undertaken;
(c) geographical extent of the out-reach programmes undertaken;
(d) significant changes brought about in the society as evidences based on response and feedback; and
(e) change in the over-all tone, tenor and ethos on the campus

4.3 Best Practices in Research

The first best practice is to admit the best students, especially at the postgraduate level. It provides the strongest foundation to initiate research. Even at the undergraduate level, early realization of pangs of ignorance instills a desire to seek the unknown. There is much truth in the saying that the mind of an adult can build only as high as the foundations constructed in youth will support. Therefore, the golden rule in research is: catch them young. Rudyard Kipling has aptly said, "I keep six honest serving men. They taught me all I know. Their names are: What and Why and When and How and Where and Who". Isidore Rabi, a winner of Nobel Prize for physics, was asked how and why he became a scientist. His reply was: "My mother made me a scientist without ever knowing it. She used to ask me, 'Izzy, did you ask a good question today?" Inquisitiveness may prove to be the golden key for many other good practices. Henry Poincare outlined four steps – preparation, incubation, illumination and verification – for creative research, which can be adopted as the best practices.

Inculcation of the spirit of openness forms one of the strongest practices known in research. Minds are like parachutes; they function only when open. A malleable mind is the most valuable asset for good research. We are very prone to quick reflex conditioning, fixing blinkers on our eyes, development of mental groves or calcified mental barriers. Therefore, at times, unlearning becomes a better practice than learning. Physiologist Claude Bernard has said that it is which we do know which is the great hindrance to our learning, not that which we do not know. Francis Bacon said: "Read not to contradict and confute, nor to believe and take for granted, but to weigh and consider."

Over-emphasis on submission to authority, overdose of rigour and discipline also block imagination and inhibit creativity in students. Institutions holding on to such age-old feudal practices produce conformists, stereotypes and incomplete individuals, not original and creative thinkers and researchers.

Nobel Laureate Arthur Kornberg has quoted Paul de Kruif about succession of major movements in medical science: Microbe hunters, Vitamin hunters, Enzyme hunters, recent Gene hunters and the current Head hunters. It is important for institutions to understand how the incandescence of enzymology was so dazzling that attention to nutrition as a science faded nearly to the vanishing point, leaving the major questions of human nutrition unattended. Just as enzymology eclipsed nutrition, so has genetic engineering, with its mastery over DNA, cast a shadow on enzymology. One of the best practices in research, therefore, is to eliminate all possible menticides and their related processes. In fact, history of brilliant discoveries teach us that before communication of research, several distinct steps, tasting, testing, taking, collecting, selecting, digesting, absorbing, assimilating, analyzing, storing, retrieving, synthesizing and owning, etc., sequentially constitute the best practices on a ladder culminating in the dazzling lighthouses of research.

Rigorous culture of experimentation coupled with intense concentration and long hours of intellectual incubation are extremely essential for research. Carlyle's remark that genius is an infinite capacity for taking pains is true. Keen power of observation enables a researcher to catch hold of the minutest details, so valuable for the resolution of a riddle. One of the most brilliant bacteriologists, Theobald Smith, has said: "It is the care we bestow on apparently trifling, unattractive and very troublesome minutiae which determines the result". Deeper the observation, wider the experience and brighter the research results.

There are innumerable instances, which prove how important the role of chance plays in discoveries. However, it is known that chance comes to an extremely prepared

mind. Chance favours only those who know how to court her. Those researchers who have honed their instinct to arrest an exception succeed in catching the creative spark, hitherto missed by others. If such a moment is missed, it may be lost forever. Adoption of all practices, which facilitates the capturing of a precious fleeting chance, endows the institutions to accelerate intuitive revelations of the highest order in research.

4.4 Key aspects of Research, Consultancy and Extension

Research is systematic investigation towards increasing the sum of knowledge. The research activity and type of research varies depending upon the nature of the institution. The NAAC is also aware of the infrastructural facilities and human resources available with various institutions for research activities. This is evident from the weightage allotted to different units of assessment under Criterion III, Research Consultancy and Extension. For a university, the weightage given to Criterion III is 15, for an autonomous institution it is 10 and for an affiliated college it is only 05. The seriousness and the time given for research in university departments cannot be compared with those of a college although there are exceptions. The best practices under Criterion III – Research Consultancy and Extension in an institution need not always be emulated by another institution. However, the best practices in an institution can be adapted by other institutions, if necessary, with modifications to suit their purpose and context.

Following are some of the indicative parameters, which would help to identify quality aspects of research, consultancy and extension activities undertaken by the faculties and the higher education institutions. The ambience created by the institution or the practices adopted by the faculties for the realization of these aspects can be very well considered as a best practice worth emulating.

4.4.1 University

(a) Teachers
international standards of publications
regularity in publishing research papers
invited review articles
membership in editorial boards of national / international journals
fellowship awarded by international agencies like Hamboldt / Smithsonian / UNESCO / Commonwealth etc., and national agencies like UGC, INSA, ICPR, ICHR etc., for post- doctoral research awards and recognitions citation index impact factor
patents received major research projects funded by national / international agencies reference books and monographs number of scholars awarded Ph.D.s

(b) Institutions

the number of departments getting FIST/ Special Assistance/ Advance Centre status
organizing national / international conferences
publication of journals and books
best paper award
best teacher award
Research Advisory Committee
seed money for projects
funding research projects of local relevance
long-term solution to problems of local community through surveys and project studies
availability of reference materials through library, internet, INFLIBNET etc.
inter-disciplinary approach in research
centralized instrumentation facility taking care of the needs of researchers
timely repair and effective utilization of costly equipment
administrative and organizational encouragement
international linkages
industrial linkages
Memorandum of Understanding with industries / research institutes
awareness of Intellectual Property Rights (IPR), TRIPS, GATS etc.,
legal procedures for obtaining patents
generation of resources through consultancy
community oriented extension activities

4.4.2 Autonomous / Postgraduate College

(a) Teachers

research publications in national / international journals
membership in subject associations
attending university / national and international conferences / seminars / workshops as participants / resource persons
Minor / Major Research Projects
consultancy of expertise
linkages with universities / industries

(b) Institutions

Research Committee to assist faculty members for submitting research projects
seed money for submitting projects
encouragement from the Management / Principal
organizing seminars and conferences
project work for students

invited lectures by outstanding researchers
development of departments as recognized research centres of universities
extension activities mobilizing students and teachers

4.4.3 Undergraduate College

(a) Teachers
Ph.D.
research papers
publication of popular articles in their respective fields
participation in seminars / workshops / conferences
minor research projects funded by external agencies

(b) Institutions
Research Committee to develop research culture
seed money for submitting projects
encouragement from the Management / Principal
organizing seminars and conferences
project work for students
invited lectures by outstanding researches
consultancy offered by experts
extension activities with the help of students and teachers

4.5 Outcome of the Best Practices

We are aware of information and knowledge explosion all around. Boundaries between the known and the unknown are receding fast as a consequence of research-culture, and increasing adoption of various healthy practices.

Excellent research culture in India has yet to take roots in all our universities. However, despite our pit-falls and financial drought, it is amazing indeed that some of our finest teacher-researchers have shown remarkable levels of resilience, determination, integrity and drive to achieve excellence not only in a few universities but also in a few colleges situated in remote rural areas. In a survey of performance in basic research in selected universities and other research organizations during 1995 – 2001, it has been reported that the Mean Impact Factor of research papers in the Jawaharlala University and Jadavpur University ranges from 2.51 to 1.502, these being higher than those from other institutions / organizations, including the Indian Institutes of Technology.

The outcome of the best practices vigorously adopted by some of our universities can be quantified by the amount of their on-going research projects also, which are funded

by various agencies in India and abroad. Although the reports of the Peer Teams of all the 33 highly rated universities do not mention these amounts, as many as four universities cross the Rs.10 crore mark. It is heartening to mention, as may be seen from the examples given later, that the outcome of some of the colleges has also been very good.

The tradition of earning patents from the researches done in our country has been relatively new. However, assessment and accreditation exercises have surely encouraged this trend. One of the universities has earned more than Rs.3 crore as counselling output in two years. Another university has got as many as 31 patents registered.

The outcome of the best practices in extension has generally been very good. It has led to harmonious relations with the different stakeholders, increased sensitivity of staff and students and holistic and integrated development of our students. Students enrich both their intellectual and emotional quotients. They get the best lessons in empathy, inclusiveness and affirmative actions. Sooner or later these efforts will surely improve our Human Development Index.

4.6 Salient Examples

1. In the University of Hyderabad, conscious decision of the faculty not to recruit their own students immediately after graduation, has largely avoided in-breeding.
2. Ongoing research projects of the Osmania University, Hyderabad; University of Hyderabad, Hyderabad; Andhra University, Visakhapatnam and University of Mysore, Karnataka, are more than Rs.10 crore each.
3. St. Xavier's College, Mumbai, established the Caius Laboratory for inter-disciplinary research in 1947, providing services to all the science departments.
4. Birla Institute of Technology and Science, Pilani, Rajasthan, has developed a computer-based "Virtual University".
5. University of Roorkee, Uttaranchal, has developed an Information Super Highway Centre.
6. University of Pune, Maharashtra, has permitted the growth of about half-a-dozen reputed research institutes / centres on its campus, including inter-disciplinary research vibrancy all around. This has also facilitated academic networking and sharing of resources.
7. Karnataka University, Dharwad, allocates one time grant to their research co-ordinators.
8. Guru Nanak Dev University, Amritsar, grants 50% subsidy to teachers and academic support for personal books / journals subject to a ceiling of Rs.2000/- per annum.

9. Jadavpur University, Kolkata, provides seed money to young teachers to undertake research.
10. To encourage research by the faculty who could not attract extra mural funding, the University of Mumbai, provides minor funding which has now risen upto Rs.15/- lakh per annum.
11. Managements of a few colleges have also initiated allocation of research grants to a few teachers.
12. Sacred Heart College, Thevara, Kerala, has instituted special awards for the best paper published by staff members on the recommendation of specially constituted committee.
13. Andhra University, Visakhapatnam, eliminates ill-written projects by subjecting them to internal peer reviews. This step has yielded positive results in that most of the proposals forwarded by the University were positively considered by the funding agencies.
14. Indira Gandhi Institute of Development Research, Mumbai, has a system of referring discussion papers and internal evaluation of these before sending them for external evaluation.
15. Guru Nanak Dev University, Amritsar, has a requirement that at least one research paper is published in a referred research journal before submission of a Ph.D. thesis.
16. Birla Institute of Technology and Science, Pilani, Rajasthan, has a Doctoral Counselling Committee, which monitors the progress of a Ph.D. student.
17. University of Madras has an Academic Achievements Committee to monitor academic output.
18. Guru Nanak Dev University, Amritsar, has been regularly publishing 12 research journals during the last 20 years; in addition to publication of 201 books every year.
19. The Punjabi University, Patiala, has published more than 2000 titles.
20. The University of Calcutta has been publishing 20 journals.
21. University-industry-interaction is vigorously and systematically maintained through the specially constituted cells by the University of Calcutta, West Bengal; Punjab University, Chandigarh; University of Mysore, Karnataka and University of Madras, Tamil Nadu.
22. University of Roorkee, Uttaranchal and Anna University, Tamil Nadu, have developed excellent international twinning programmes. Many other universities and colleges have arranged for MoU with other centres of learning.
23. Anna University, Tamil Nadu, has transferred technologies of high order to industries.
24. Punjab University, Chandigarh, has got 31 patents registered.
25. Consultancy output of the Roorkee University, Uttaranchal, has been Rs.3.48 crores in the last two years.

Salient examples of the best practices in extension, already adopted by several institutions, can be grouped into four major areas of health awareness, rural development, urban services and other activities on the campuses.

Organization of medical camps, eye relief camps, blood donation camps, first aid training, physiotherapy for the handicapped, Youth Red Cross, yoga and polio immunization are some of the highlights adding to health awareness in society.

Rural development activities, e.g., road making, repair of canal breach, fisherman's guidance bureau, demonstrating certain experiments to rural children, and bio-fertilizer project have been noteworthy. M K E S's Nagindas Khandwala College of Commerce and Arts, Mumbai, has built 48 toilets for a tribal community under their Tribal Development Project. St. Joseph's College, Tiruchirappalli, Tamil Nadu, has evolved an out-reach programme and adopted 66 villages. They have also started ASTRA (Application of Science and Technology in Rural Areas) – programme, and included it in their curriculum.

Andhra University, Visakhapatnam, has started Adult Education Services (AES) of NSS, where every student adopts a few uneducated persons and teaches them. Elsewhere, students have been involved in traffic control, night patrolling, science popularization, science exhibition, eco-club, water harvesting, functional literacy project, cultural Mela etc. The D G Ruparel College of Arts, Commerce and Science, Mumbai, organized mass wedding ceremony for *Adivasis* by raising public funds.

Within the institutions, students have been involved in writing wall magazines, assisting library staff, creating a tobacco free zone, development of Green Campus for senior citizens, growing herbal garden and building NSS Bhawan. Non-teaching staff of St. Anthony's College, Meghalaya, uses winter vacation to paint the college building themselves.

4.7 Suggestions

Several strategic interventions are immediately required to ensure that a vibrant research culture spreads to all institutions of higher learning. Firstly, globally valid bibliometric methods have to be used to quantify the worth of research publications. Possibly no university in India has yet started publicly honouring teachers holding the highest Citation Indices or Impact Factors. This need be started urgently.

Secondly, let us realize that our Ph.D. degrees are being churned out *en masse* generally with little concern for quality, originality, creativity and relevance. Nearly all the theses, irrespective of their being poor, padded and primitive, are accepted for the

award. It is high time that abstracts of all Ph.D. theses were published to curb the poor quality of the awards. INFLIBNET should do this job.

Publication-linked incentives to the faculty in the form of reduction of teaching load and enhanced funding from the university resources may be considered by the universities in order to improve the research culture. Further linkages with the research institutes may also be brought about. From the beginning, most of our universities have been functioning in isolation from industries. Lately, however, this harmful attitude of surviving inside the cocoons is being reversed. Linkages with industries and getting consultancies significantly add to the academic relevance of our universities, in addition to providing extra funds. These healthy trends have to be adopted, adapted, strengthened, spread, accelerated and systematized in future.

It would be ideal if the extension activities are also spread further, involving every student. Institutions may also focus on certain areas of their choice so that its cumulative impact is made more visible far and wide. Issues like population control, gender sensitivity, malnutrition, fog-water harvesting, wild life protection, afforestation, safe drinking water and prevention of female foeticide may be put on priority.

In order to ensure that the institutions lay down strong, healthy and varied traditions in research, consultancy and extension, it would be the best to have three different cells to collect the best ideas from other institutions; adopt or adapt the ones, which are found the most suitable; and monitor their performance regularly.

Standing on the cutting edge of knowledge has now become an essential prerequisite for global leadership. In order to achieve this, we will have to strengthen both Information Technology and Information Science. Close relationship between Information Science and poverty has to be understood: faster the information flow, lesser the poverty. We may be strong in IT, but are generally weak in Information Science, the science to know how to know. There are innumerable barriers to information flow on our campuses. Therefore, we will have to hone our skills to know how to know to remove these barriers.

Regular monitoring of the criteria, e.g., qualified faculty; appropriate teacher-student ratio; balance between the aged and the youth in faculty; good team work; modern infrastructure, including a modern centre for information science technology in the place of a traditional library; able administration; sufficient opportunities for brain storming; twinning programmes with other institutions; linkages with industries and promotion of consultancy and extension work can bring about a sea-change in the quality of our institutions. Periodic peer reviews and regular feedback from the stakeholders can lead to quality management of research, consultancy and extension.

4.8 Conclusion

The best practices in research consultancy and extension are the outcome of harmonious interplay of a number of factors like innovative mind of brilliant teacher-researchers, modern infrastructure facilities, encouragement and motivation from the administration, etc. The strong research background of the faculties enriches the teaching-learning processes in the institutions, which in turn supply empowered human resources to the society. A strong research foundation is also necessary for developing best practices in consultancy services, which ultimately augment the corpus of the institution. Innovative practices in extension activities show how seriously and effectively an institution has addressed the immediate needs of the local society. To illustrate how some of these considerations have been taken note of by the institutions the following section presents specific cases.

Section B: Case Illustrations

The best practices of four colleges and three universities are presented here. The criterion of research ambience to promote research culture in universities and colleges at undergraduate and postgraduate levels is the main thrust of the best research practices. The best practices in extension are significant as they are conducive to the empowerment of rural communities. Particular mention may be made of the establishment of a technical university in a rural area. While these best practices indicate the rudiments of development in research, the ideal heights to which research can be carried are well outlined and articulated in Section A. A close examination of both sections can help discuss the emerging holistic approach to both research and extension. The best practices in the area of consultancy are also indicated in the case illustration of some universities presented here. In the age of intellectual property rights, higher education stands to gain, both academically and financially, if these rights are well used with substantial intellectual contributions.

Case 1: Establishment of a New College of Engineering for Rural Youth

1. Objective of the Practice

Bringing rural youth into the mainstream of quality programmes

2. Need Addressed and the Context

Rural youth have generally been left behind the mainstream of higher technical education. Due to the lack of exposure to quality education at the qualifying level of studies, they normally fail to satisfy the merit requirement of good institutions and hence are denied admission to them. The need is to remedy this deprivation.

3. The Practice

In 2004, the Punjabi University, Patiala established, Yadwindra College of Engineering and Technology at Talwandi Sabo Bhatindas, a backward rural region, offering B.Tech. and M.Tech. (in electronics and communication, computer and mechanical engineering) to provide technical education to students coming only from rural areas.

Around 180 students are selected after completing their secondary education from village schools; and are admitted for +2 classes in the college itself to give special training. These students are given opportunities for higher education in B.Tech. and M.Tech. The university provides scholarships to poor and deserving students through donations collected from donors from India and abroad. Arrangements are also made for obtaining loan scholarships through banks.

4. Evidence of Success

Admission to the first batch has been made. The village community has welcomed his novel effort.

5. Resources

Costs of building are being arranged from loans from banks (Rs.16 crore), UGC X Plan funds (Rs.1.22 crore), university's own funds (if and when required), student fees, and donations.

6. The Institution

Name: Punjabi University
Address: Patiala - 147 002, Punjab
Tel: 0175-2286418 (O), Fax: 0175-2286682 / 2283073
Email: reu@pbi.ac.in / dpm@pbi.ac.in
Website: www.universitypunjabi.org
Year of Accreditation: 2001 - 2002
Grade awarded by NAAC: A***** (Five Star)
Contact person: Shri. S Singh Boparai, Vice-Chancellor

Case 2: Developing Research Competencies in Teacher Trainees

1. Objective of the Practice

To develop research competencies among teacher trainees

2. Needs Addressed and the Context

Teacher trainees need to be trained as educators to inculcate effective learning styles in their students. They need to be creative and innovative in their approach to teaching / learning activities, which requires some level of research competencies. The need is to equip them for the task.

3. The Practice

The teacher trainees (B.Ed. students) are guided to take up investigatory and action research projects in order to develop research and inquiry skills / competencies in them. The topics assigned for investigation / action research are school curriculum, learning habits of school children, environmental issues, value education, teaching methods, school administration and other related topics. Each teacher trainee is guided by a qualified teacher and after completing studies she is asked to present her research finding in an open forum.

4. Evidence of Success

Students have developed interest in higher education specially to continue postgraduate studies and research in education. Those who join as teachers continue to take up investigatory and action research projects in schools as teachers. They also adopt effective teaching and training strategies such as Discovery Learning, Activity-Based Teaching, Project Method, Team Teaching etc.

5. Resources

College library, internet connectivity, multimedia facilities, CDs, technology lab, community resources, expert teachers for supervision

6. The Institution

Name: St. Ann's College of Education
Address: Mangalore - 575 001, Karnataka
Tel: 0824-444047 (O), 0824-427360 (R)
Email: stauus@sanchernet.in
Website: www.stanuscollege.net
Year of Accreditation: 2001 - 2002
Grade warded by NAAC: A***** (Five Star)
Contact person: The Principal

Case 3: Creation of Better Research Ambience

1. Objective of the Practice

To enhance research potential of faculty

2. Need Addressed and the Context

The University of Madras aims at excellence in research and high quality in higher education. Further, the research potential of scientists is sought to be extended as consultancy service to industry, to provide hands-on training to students and to offer job-oriented short-term courses. To promote these aspects the University has adopted many strategies which have resulted in tangible outcomes.

3. The Practice

The practice comprises expeditious processing of research projects, special grants for all kinds of research activity (including 50% cost reimbursement for attending workshops and seminars), merit-based incentives to faculty, appointment of national and international experts as Adjunct Professors to promote excellence and monitoring of quality initiatives in affiliated colleges. Facilitative measures have been augmented for university-industry co-operation and for preserving and protecting intellectual property rights and patenting. The University Industry Consultancy Interaction Centre (UICIC) is involved in promoting consultancy services based on research.

4. Evidence of Success

Increase in the number of applications from prospective students, increased interest of overseas students for admission to the university, increase in project related funds and patenting and commercialization of a drug through UICIC.

5. Resources

Funds from various funding agencies, expertise from consultants through authorized agencies and networking with overseas and Indian universities

6. The Institution

Name: University of Madras
Address: Chepauk, Chennai - 600 005, Tamil Nadu
Tel: 044-25361974 (O), Fax: 044-25367654
Email: vcoffice@unom.ac.in
Website: www.unom.ac.in
Year of Accreditation: 2000 - 2001
Grade awarded by NAAC: A★★★★★ (Five Star)
Contact persons: Prof. S. P. Thyagarajan, Vice-Chancellor

Case 4: Research Incentives for Faculty

1. Objective of the Practice

To encourage teachers to take up research projects and to publication of papers in research journals of national and international repute

2. Need Addressed and the Context

Major share of the time of the teachers in a college is devoted to teaching; and research is given less importance in their routine activities. Unlike university teachers, college teachers are generally not given any incentive or motivation for their achievement in their research activities. Therefore, some encouragement is required on the part of the Management to motivate teachers to undertake research programmes.

3. The Practice

The practice comprises giving cash incentives to teachers with research initiatives and achievements and monitoring of the quality of their research. The following practices are some:
- cash incentive of Rs.200/- per month to all Ph.D. holders among teaching staff
- cash incentive of Rs.5000/- for completing Ph.D. degree
- 2% of the Major / Minor Research grant is paid by the Management to the awardee of that grant

- cash incentive of Rs.1000/- per paper published in a peer reviewed journal
- committee headed by the Principal scrutinizes the applications received and recommends for grant from the Management

4. Evidence of Success

The number of Ph.D. holders among staff has increased from 22 to 36 and the number of papers published has increased considerably.

5. Resources

Management provides budgetary allocation of 2 lakhs per annum to meet the expenditure in this regard. Resources generated through consultancy services are utilized for this purpose.

6. The Institution

Name: Ayya Nadar Janaki Ammal College
Address: Sivakasi - 626 123, Tamil Nadu
Tel: 04562-254100 (O) Fax: 04562-254970
Email: vgr_anjac@sancharnet.in
Website: www.anjac.org
Year of Accreditation: 1999 - 2000
Grade awarded by NAAC: A***** (Five Star)
Contact person: Dr. S. Sevagapandian, Principal

Case 5: Creation of Research Culture among Undergraduate Students

1. Objective of the Practice

To inculcate research culture among undergraduate students

2. Need Addressed and the Context

The semester scheme, introduced by the University of Mysore carries 20 marks for internal assessment out of which 10 marks are allotted for the test and 10 marks for assignment. There is a need to use this provision towards student development. Students need to be encouraged to take up assignments, which will help them to go beyond the curriculum and prescribed syllabi with the help of the internet and information and communication technology (ICT) enabled facilities. In other words,

the need is to optimize student research potential with the use of information technology.

3. The Practice

The departments assign topics for assignments, which are not directly connected with the syllabus. Students select a topic of their interest / choice, and complete assignments, using internet, e-journals, as well as books in the library. This serves the dual purpose of meeting course requirements for internal assessment and also to develop an interest in research among students. To facilitate this, arrangement has been made in the college to provide the internet facility to all students. Through a 64 kbps ISDN line, internet is made accessible in 25 computers at a time. On an average, the internet facility is made available for about 14 hours a day. Each student is given a card to reserve the slots for using it according to convenience and 10 hrs of internet browsing per student per annum is allowed free of cost.

4. Evidence of Success

Students are very enthusiastic about it; and utilize the internet and other facilities for completing assignments. The use of IT is evident on the campus.

5. Resources

The College has a computer centre with 50 computers. The recurring expenditure of Rs.12-14 thousand per month is met from the college funds.

6. The Institution

Name: St. Philomina's College
Address: Mysore - 750 015, Karnataka
Tel: 0821-490728/ 496155 (O), Fax: 0821-498013
Email: stphilos@sancharnet.in
Website: www.stphilos.org
Year of Accreditation: 2004
Grade Awarded by NAAC: A^+
Contact person: Rev. Fr. Leslie Morais, Principal

Case 6: Free Food to Poor Patients

1. Objective of the Practice

To create social awareness and to respond to social needs

2. Need addressed and the context

The College is very close to the Medical College Hospital, Calicut, where thousands of patients come for treatment every day. A large number of patients admitted are very poor and many of them cannot afford the cost of food and medicine. Food and medicine, if given free of cost, are a great source of solace for them.

3. The Practice

The Management, staff and students, with the help of St. Vincent De Paul Society, started a project to provide a noon meal to each poor patient. The Management provides kitchen facilities, water, electricity and labour on the campus. Staff members contribute regularly from their salary towards expenses; and sometimes on special occasions sponsor one day's total expenditure. Staff and students help to prepare food and to distribute it to patients through by-standers. They visit the hospital wards to identify patients who are in need of food.

4. Evidence of Success

The project introduced five years ago by supplying lunch to 25 patients is now providing free food to about 450 patients every day. Besides food, the college also provides counselling, medicine and blood to the possible extent.

5. Resources

Daily expenditure for the project is around Rs.3000/- excluding water, electricity, labour and rent, which are given freely by the Management. Expenditure is met from the contributions by staff, Vincent De Paul society and other well wishers.

6. The Institution

Name: St. Joseph's College
Addresss: Devagiri, Calicut - 673 008, Kerala
Tel: 0495-2357370/ 2355901 (O), Fax: 0495-2355901/ 2357370
Email: sjcdevagiri@eth.net / josephvayalil@yahoo.com
Website: www.devagiricollege.org
Year of Accreditation: 2004
Grade Awarded by NAAC: A
Contact person: Rev. Fr. V. T. Joseph, Principal

Case 7: University-Industry Interaction

1. Objective of the Practice

To motivate young students to take up research in areas relevant to the development of industries.

2. Need Addressed and the Context

In order to enable youth to pursue need based job-oriented programmes, Mangalore University has introduced programmes such as MCA, M.Sc (Applied Chemistry), MBA, MBA (TA), B.Sc (Fashion Design), and B.Sc (Leather design). These programmes need collaboration with industries. The need is to bring in an effective partnership between the university and the industries around.

3. The Practice

The practice is one of entering into MoUs with high level industrial agencies recognized for research and development in order to impart training in skills to students and of inviting guest lecturers from them to address students. Several collaborative research projects are undertaken through MoUs with industries and research institutions. Many research centres and industries recognized by the Department of Science and Technology (DST) are affiliated to the university as centres of research studies. Experts from such institutions are invited to deliver lectures on specialized topics connected with quality control and safety standards. Many industries with the research and development wings assist students of the university during industrial training after which they are required to present a project report assigned to them in their respective programmes. Former students working in industries are encouraged to take up part–time research and are allowed to register for the Ph.D. degree. Regular campus interviews are conducted by various industries.

4. Evidence of Success

So far nearly one hundred students have secured jobs through university–industry collaboration. About six students have obtained Ph.D. degree through such linkages.

5. Resources

Industries and nationalized banks have sponsored these projects by creating chairs of studies and research grants.

6. The Institution

Name: Mangalore University
Address: Mangalagangotri - 574 199, Dakshina Kannada District, Karnataka
Tel: 0824-2287276, 2287347 (O) Fax: 0824-2287424, 2287367
Email: hollabs@yahoo.com
Website: www.mangaloreuniversity.ac.in
Year of Accreditation: 1999 - 2000
Grade Awarded by NAAC: A**** (Four Star)
Contact person: Prof. B. Shivarama Holla, Chairman, Department of Chemistry and Director (I/C), College Development Council

Case 8: Centre for Social Action (CSA)

1. Objective of the Practice

To arouse social consciousness among students and to apply their educational principles to concrete social issues

2. Need Addressed and the Context

Students need an opportunity to work with underprivileged sections of society and upgrade their personality and experience through community service.

3. The Practice

Various programmes that are conducted are Vikas - a joint project with the Association for Promoting Social Action to sensitise students to social issues; Child Sponsorship Programme - students individually or collectively sponsor a needy child to complete his/her education, medical treatment, etc.; Vocational Training Programme - to provide skill training for youth and women in villages; Rural Exposure – overnight camps for students at villages/slums to interact personally with villagers; and Exchange Programmes – with Sund Folk College, Norway to promote spirit of international solidarity especially to enhance positive relations between rich nations and the Third World Nations. Besides the above mentioned there are other programmes like housing project, self-help groups, etc.

4. Evidence of Success

The response of those who have benefited from these programmes is very positive. An active Alumni Association that speaks about students who have been touched by the

work done through the CSA and wish to continue the work even after graduation and about those who carry on the work at places of their work is an evidence of the positive impact created by this practice.

5. Resources

The programmes are jointly financed by the Management other various other agencies. The Child Sponsorship Programme is aided by students' contributions. The CSA is completely voluntary and therefore human resources are the major resource needed to sustain such a venture. A very motivated faculty and socially conscious students have ensured the success of the programme.

6. The Institution

Name: Christ College
Address: Hosur Road, Bangalore-560029, Karnataka
Tel: 080-25536280, 25525258 (O)
Fax: 080-25535863
Email: naac@christcollege.edu
Website: www.christcollege.edu
Year of Accreditation: 1998-1999
Contact person: Rev. Fr. Thomas C Mathew, Principal

Case 9: Giving Best to the Least

1. Objective of the Practice

To eradicate child labour from the local areas

2. Need Addressed and the Context

St. Theresa's College is located in the rural area of West Godavari District. People of this area mainly depend on agriculture for their livelihood. Due to frequent monsoon failures they are subjected to several economic hazards. The problem of child labour is alaramingly high in the district. St. Theresa's College decided attempts to be available to the least and the underprivileged. The practice involves the faculty and students of the college to do their best to make their lot less miserable.

3. The Practice

The practice comprises sustained contact with the four slums in the neighbourhood, establishment and running of a school with the help of Andhra Pradesh Social Service Society, offering bridge courses to senior children by bringing them to the college campus and identifying with their culture by celebrating festivals together.

The learners were divided according to their learning capacity and provided bridge courses in order to enable them to join formal schools. The age group between 13-19 were given special training in life coping skills such as small business, vermicomposting and nursing assistance courses. They learn these skills during holidays.

4. Evidence of Success

Every child below 12 years of age has started going to school. Besides, a group of boys between the age group of 14-19 have been trained in vermi-composting.

5. Resources

Finance is provided by Andhra Pradesh Social Service Society and a few other aid organizations and staff of the college. Residential facility and transport are provided by the Management of the college.

6. The Institution

Name: St.Theresa's College for Women
Address: Gavaravaram, Srinivarapupet Post, West Godavari District
Eluru-534003, Andhra Pradesh
Tel: 08812-250380, Fax: 08812-250380
Email: theresa_cherian@yahoo.com
Website: www.theresacollege-eluru.com
Year of Accreditation: 1998-1999
Grade Awarded by NAAC: A***** (Five star)
Contact person: Rev. Dr. Sr. Thresia Cherian, Principal

Case 10: Community Reach Programmes

1. Objective of the Practice

To educate masses in areas of health, nutrition and hygiene including mobilization of community groups to better quality life

2. Need Addressed and the Context

Students from the Foods and Nutrition department are in an ideal position to work with families and communities to create awareness of healthy living. This practice helps the community and also helps students to enrich themselves by community service.

3. The Practice

Need-based community development programmes are planned through a dynamic process of communication between school children, their parents and women organizations in the area and the staff and students of the institution. Base line data in nutritional status is obtained through in-depth anthropometrics process of communication. The following activities form a part of this practice:

- organizing and conducting non-formal classes in municipal schools and slums to promote value based education and raising awareness of environmental preservation in the urban suburbs of Mumbai by using healthy food, hygiene and bio-degradable products.
- organizing and conducting non-formal and adult education in rural areas: Women in the age group of 18-50 are trained as entrepreneurs and enlightened mothers who can take care of children with insights from physiology and psychology
- promoting Population Education to urban Mumbai and rural Maharashtra about the importance of healthy reproductive practices, healthy diet, treating girl children with the same honour as the male children in the family, etc.

4. Evidence of Success

Positive feedback from community, students and alumni

5. Resources

Dedicated team of teachers, motivated students, liaisoning with welfare centres and industrial organizations, and financial support from external sources

6. The Institution

Name: Sir Vithaldas Thackersey College of Home Science for Women
Address: Juhu, Santacruz West, Mumbai - 400049, Maharashtra
Tel: 022-26602504 (O) Fax: 020-26606427
Email: computerlab@vsnl.net
Website: www.svt.ac.in
Year of Accreditation: 1998-1999
Grade Awarded by NAAC: A***** (Five star)
Contact person: Dr. Sunanda Chande, Principal

Chapter V

Best Practices in Infrastructure and Learning Resources

Amiya Kumar Dev
Ganesh Hegde

5.0 Quality is the cumulative product of both human and material resources in an educational institution. While the holistic development of the learner depends on intellectual capital, to a large extent, the effective functioning of such capital requires among other things, an enabling infrastructure that can allow it to be productive. The infrastructure one thinks of is not just space and premises although they are indispensable. It is the sum total of the utility of space, structure, equipment, learning resources, infrastructural aids, information stock and knowledge sharing devices. These by themselves may lie unutilized if an effective exploitation of their utility is not made by planned economic, purposeful management and maintenance of these resources. Section A of this chapter highlights this bi-focal approach to infrastructure and Section B illustrates ways of doing this with select best practices.

Section A: Framework

5.1 Introduction

Higher education institutions cannot do without quality. However big they are in numbers and scope, if they cannot command quality, their contribution to higher education in India will not be substantial. But how are they to do it, command quality? A ready answer may be, by continuously striving for it. But strive where, in what respects? This is where the NAAC helps by providing a systemic approach to quality assurance. The NAAC has been assessing institutions on six core criteria which are: 'curricular aspects', 'teaching-learning and evaluation', 'research, consultancy and extension', 'infrastructure and learning resources', 'student support and progression', 'organization and management'. Together they give a total view of the institution. The NAAC also takes a look at whatever 'healthy practices' an institution may have in addition, and the assessment scores are given on the strength of these six plus one. The scores so far have been varied and on the tally taken on 16 February 2004, 33 universities and 132 colleges have been given either A and above in the current nine-point scale or Five Stars in the earlier star-wise grading. It has been found from their evaluation reports that by and large these 165 institutions have been uniformly good in all the core criteria. If their curriculum is solid, wide-

ranging and diverse, the teaching-learning and evaluation done by them are also outstanding. So is the research done by their faculty, often leading to expertise needed for the consultancy sought of them. At the same time they have commendably socially committed extension and outreach services. Simultaneously, their infrastructure and learning resources for all curricular programmes are first-rate and the facilities for the extra-curricular activities ample. Besides, they provide a comprehensive support system to their students and an incentive for further studies or help in placement. All this is coupled with good administration and participatory management. In other words, the quality of these highly reputed institutions is on the whole systemically assured, not by overstressing one criterion and underestimating another.

Now, it is possible to induct what may be called the 'best practices in higher education' from the evaluation reports of these institutions. The term is not to be taken absolutely, but in context, that is, with reference to the practices that have so far been looked into. More practices are going to be looked into that may give us a few more referees to validate our sense of the 'best', without of course compromising our scale of judgement. All this falls within the domain of inductive logic. However, it may be possible at the same time to think of a set of ideals to be pursued by higher education institutions. In fact, most education philosophers have done that, that is, taken a normative view of education. The 'best' then would not be actual practices, but norms that are to be actualized. What is proposed below is a combination of these two methods, the pragmatic and the normative. It is felt that neither by itself will do. The normative is needed to sustain the pragmatic while the pragmatic is needed to authenticate the normative.

5.2 Criteria of Best Practices in Infrastructure and Learning Resources

Quality indicators in the infrastructure and learning resources of a higher education institution may be listed as follows:

a. adequate physical facilities for a proper execution of the academic programmes, and their regular maintenance as well as optimal use
b. infrastructure growth matching all academic growth
c. a good and well laid-out library with ever-increasing holdings and brisk as well as user-friendly service
d. computers as a learning aid and for other purposes as well including information and communication
e. other everyday teaching-learning aids
f. various co-curricular and extracurricular facilities including sports
g. healthcare, residential and other ancillary facilities

Of course these indicators are not in themselves quality producing, they have to add up to a number of others for that. But there is an aspect of them that have to be borne in mind. The physical facilities may not be similar everywhere for reasons of location. Besides there may be a difference in this between universities and colleges in general, the former having more facilities than the latter. So it may not be advisable to gauge quality by the quantum alone, but by its management as well, for lesser facilities handled with greater economy may not be any less productive. What a block of buildings in a metropolitan situation may achieve may not be any inferior to what is achieved by a sprawling campus elsewhere provided no compromise is made in the standard of the teaching-learning practised. In other words, the acre count of space may not be a final determinant in quality reckoning. But by no means must the space be inadequate leading to unsavory rationalization like quick shifts and short shifts to daily contact. However, immediate adequacy is good but not good enough, for an institution cannot afford to stagnate and must offer an ever wider range of courses, thus necessitating ever-augmented physical facilities. Indeed quality is like quicksilver; quality once does not mean quality ever—one needs to keep striving.

As a quality indicator the learning resources may mean more than physical facilities. While economy may plug up any holes in the latter, the former has no room for economy. A good library cannot afford to be any less good, not so much in terms of the space it commands, but of its holdings, of the treasure of knowledge it stores and goes on adding to. At the same time its value is measured by its users' dependence on it and by the frequency of their visit to it. It must be one of the hubs of an institution. Another hub must be the computer centre or the central computer facility catering to everyone. Quality demands that it should have an open house policy for not only the universal computer literacy that an institution may have on its agenda but also for specialized use by way of academic programmes or for access to the information and communication network. As books are to be read, so are computers to be plugged on, for no knowledge or skill is whole or sole unless the head and the hands are on it. Quality does not brook any shortcut.

Co-curricular and extracurricular facilities or healthcare, residential and other ancillary facilities are quality indicators in an ancillary way. They may not have a direct bearing on the academic excellence an institution aspires for, but an indirect bearing they do have, for academic excellence needs to take a breather from time to time and cannot possibly do without some basic amenities. These latter, so to speak, set the scene on which excellence is called to cue. As to the former, they are also needed for the students' all-round personality development. After all, an institution's quality is no less manifest in its students' profile, and the students surely have a quality profile when they are also good sports persons and excel in art and culture.

5.3 Best Practices in Infrastructure and Learning Resources

5.3.1 Campus

All good higher education institutions have a campus unless of course they are space-starved and forced to settle for 'premises'. The latter only happens in extreme metropolitan situations where a few multi-storied buildings are enough with hardly a sense of space around them. In a few cases these institutions—and they are old universities—may rationalize by acquiring a second or a third location, even more. On the other hand there are campuses that run into hundreds of acres. It may be that all their land is not put to immediate use a part being held on reserve. A master plan too may have been drawn, not merely to answer the growing needs for academic space but to project the vision of a total campus. A total campus is ideally a small township with civic amenities of the essential kind including a post office, a bank, a police outpost, a shopping mall, a school, a small hospital, even a power substation and access to public transport. It is not meant obviously for the resident students alone but for the staff as well who live there with their families and whose daily needs are to be attended to, especially if it is located away from a municipal neighbourhood. No matter how West-leaning we may be in these matters, the ideal of a Vikramasila or a Nalanda may not be utterly alien to us, and we have every reason to be happy that there have been a few experiments, along lines not entirely uninspired by it. What transpires is the sense of a community living within the four pillars of a campus.

5.3.2 Campus Layout

A campus is often readily designed but often again, the outcome of natural growth. In any case, it carries a sense of space instead of clutter, with its built-up units at a convenient distance from one another, linked up by paved roads or pathways dotted with green. Indeed green is often the compelling colour around. Well-mown lawns or well-tended flower patches may also be there. A green-house too, a learning resource no doubt, is often there adding to the environment-happy atmosphere. There is no touch of the bleak and the ominous about such a layout.

5.3.3 Campus versus Premises

However, this does not rule out the physical viability of small campuses or what has been called the premises. For in the first place few institutions, even universities, can afford the above. Besides, certain campuses cannot undo their history and build afresh. They will have to make do with what they have or, maybe acquire, as said above, an additional campus. Then also, where is the land in the city boroughs to be so spacious, especially if it is a college catering to the neighborhood and to day scholars alone? Under such circumstances an institution may like to keep within its means and not expand in all directions without doing justice to them. No space

should be underused, no space should be overused either. Quality does not necessarily come of a multiplicity of programmes, but of programmes that are well run. The practice of running shifts, either by compulsion as may be the case in some places (holding the junior college along with the senior institution) or for reasons of optimization, may not always be congenial to collegiate education. For that may leave the shift students at lurch to be easy prey to the coaching racket around. However, it is heartening that good institutions riddled with space constraints are trying to compensate for that with better learning resources, for instance, with advanced library reference and ample digital access.

5.3.4 Campus Maintenance

Maintenance is an endemic problem with us. A big campus without a regular upkeep of its grounds or built-up space—with lawns often littered with scrap—is not an uncommon sight. Or for that matter, a college building with cracks here and there, broken window panes, toilets showing traces of long neglect, library shelves covered with a thin film of dust. A good institution does maintain its physical facilities. It is done by either the estate department or an in-charge engineer, or the Public Works Department, or by workmen under the supervision of an institution committee or/ and by the NSS volunteers as a periodic project. An institution without a speck of dust on its corridors or a single scrap on its grounds may not be a common experience, but it is an experience all right. And it is most likely to be a home of quality.

5.3.5 Optimum Use of the Campus Facilities

Good institutions take care that their facilities are not underused. Comfortable shifts are one way, as said above, without compromising the principles of collegiate education. Supplementary programmes are another way, especially those that are also available to the regular students and designed to impart them training, for instance, in computer or in career-oriented fields. A third way is by sharing with sister organizations and agencies. Some of the more enterprising institutions, particularly colleges, throw open their portals on Sundays and holidays to training institutes to run their courses. Non-university and competitive examinations or tests too are often held in the space provided by them. Some even rent out their auditorium to allied and companionable agencies. The moot point is that facilities created at such expense should not sit idle.

5.3.6 Classrooms and Laboratories

In institutions of quality they are ample in number so that no scramble is needed—one batch waiting for the other to finish. Classrooms are of various sizes as well, the bigger ones fitted out to be lecture theatres. They are well ventilated and well lit,

equipped for overhead or power point projection or for LCD. In places where the power supply is interrupted, provision is made for stand-by generators. As to the laboratories, they are airy and spacious with no crowding of experiment stations. Besides they are equipped with non-obsolescent instruments (digital balances in place of mechanical balances), with supplies never drying up, water never trickling in or gas flames flickering. A good institution is sure to have a good-size computer laboratory with its terminals hooked on to a server. There are also science museums and, in whichever way possible, whether on the open ground or on a terrace, a botanical garden with an assortment of medicinal plants. A green-house and an animal house too are in order.

5.3.7 Library

Good institutions are good in not only their basic facilities or in the management of whatever facilities are available to them, but also good in building up the learning resources, to begin with, the library. For they know that there cannot be knowledge dissemination without a treasure house of knowledge to draw upon. Of course the library or rather the central library, for there may also be departmental libraries, is, to begin with, built-up space devoted to a specific purpose. On big campuses it is a separate block with all attendant facilities whereas in "premises-all" in most institutions it may be a separate floor or a large part of it. This space too is rationalized into a set of spaces dealing with various services including the book bank meant for the needy students. That the stacks are open to students in many of these institutions is an index of their non-possessive and adult attitude to knowledge. By being spacious and uncluttered, the reading room matches this generosity. So does the reference section by being comprehensive and continuously augmented.

5.3.8 Library Holdings

A library is finally judged by its holdings and there can ideally be no ceiling to them. Most highly placed old universities have holdings in the environs of 4 lakhs. A few have more. Of the three oldest universities one has 6 lakhs, the other two 7. Good college libraries range above 60, 70 or 80 thousands, some cross the 1 lakh mark, a few even go up to 1.45 lakhs. Besides, a good library never stagnates and goes on buying newer and newer titles, usually on advice from an expert committee. Its annual budget is not meagre, though for inflation and price hike international journals are becoming more and more forbidding. However, electronic rationalizations are coming in handy. Digital collections too are being set up in the form of compact discs, in addition to the audio-video cassettes that have been piling up. Perhaps the newer super libraries are better off in all this while the older ones still cherish their rare book and manuscript collections.

5.3.9 Facilities in the Library

Facilities like reprography and interlibrary loan are quite common to these libraries. But a facility that is now prized above all and is available in some form or the other—free or paid, limited or unlimited, one at a time or more at a time—to all good institutions, is the internet. At the same time the catalogue is computerized or being computerized, and so are the services. The INFLIBNET or other NET membership is giving the users instant information on the availability elsewhere. One tends to make a distinction between a college and a university library in terms of the scope and the clientele, but there are some good college libraries in this country that can hold mirror to the belief that knowledge and knowledge alone is the gateway to excellence.

5.3.10 Departmental Libraries

In addition to the central library, there are also departmental libraries in most of the better higher education institutions. In some places they have a loose rationale, gathered together from books donated by the faculty or alumni. In some other places they are fairly structured, titles on loan from the central library of which they are a part. The purpose is day-to-day student and faculty use. By no means are they to replace the central library where all knowledge seekers' roads meet.

5.3.11 Computer Centre

If the library is the time-honoured lifeline of a higher education institution, there is a second lifeline now, the computers. There is not a single institution worth the name that does not have a computer centre, big or small, central or departmental, comprising one or many laboratories. Commissioning a couple of hundred computers, setting up a local area network for which the fibre optics cable has been laid, hooking on to a national server for international links, introducing computer literacy at all levels, designing multimedia courses, writing computer-aided instruction packages and getting a web site for the dissemination of institutional information—are no longer uncommon to good universities or even colleges. Along with such resource generation in digital learning, a big change is taking place in record keeping, examination tabulation and the daily services rendered by the institution—the computer has brought in a new vibrancy in academic administration.

5.3.12 Equipment Maintenance and Instrumentation

Computer maintenance for such institutions is usually done through an annual maintenance contract with a reputed firm. Where available, the hardware staff itself does the repair or overhauling. This is true of laboratory equipment in general—through an AMC or by the staff itself if it is a minor affair, or on call. The

instrumentation centre or the workshop too may do it, and it is heartening that most reputed institutions have one, either as a central facility or attached to a department. Some universities also run a full-fledged science instrumentation centre (USIC), looking after their own needs and also, often, needs of their sister organizations; It is almost imperative that the working hours for such centres are liberal as in the case of the library and the computer centre. Indeed there are campuses where all such services cum resources are open till late evening.

5.3.13 Health Centre, Canteen and Non-resident Centre

Adequate and state-of-the-art classrooms and laboratories, more than enough library holdings with the latest reference, both back files and current issues of prestigious journals, a commodious reading room and a computer centre always lit up and always at one's beck and call—are all indispensable to a good higher education institution. But it has also a health centre offering check-ups and medical attendance as and when needed. In a few places it also provides counselling against mental stress or drug dependence. In exemplary instances it has a hospital as well. However in metropolitan locations, for reasons of economy and logistics, arrangements are often made with a hospital or clinic next door. Of course no one dispenses with the first aid. An institution is a community, not a temporary arrangement; the more care it takes of everyone the better. Another instance of this care is the canteen, serving hygienic and low-priced food, whether run by the own staff or a caterer. Next in order is the non-resident centre or the day students' home for campuses that are not fully residential. Good institutions make sure of their infrastructure and upkeep.

5.3.14 Sports Facilities

Now an institution without a gymkhana and a gymnasium is not worth the name. Here space may be a problem for colleges that are only premises and no campus. But good metropolitan institutions have shown the way by either rationalizing the available facilities—a convention cum examination hall can house either of them at the back with a curtain folding over—or by sharing with a neighbour. Of course campuses have no problem. They have their grounds with fields for various open-air games (football, hockey, volleyball, basketball, kho-kho, cricket, etc), often with a 400- or 200-metre track around. Some even hold inter-collegiate or inter-university tournaments on their grounds. Their gymkhana has the usual indoor facilities—for table tennis, carom, chess and, in one or two places, swimming. As to the gymnasium, all good institutions have a multi-gym, the number of stations varying. That they lay value to the physical well-being of their learners and help them bring out their latent talent in sports, is evident from the incentive they give them by way of seat reservation, absence waiver, pecuniary support and extra marks.

5.3.15 Facilities for Art and Culture

As a compliment to sports and gymnastics are facilities of art and culture in such premier institutions, often an auditorium, an open-air theatre too in some cases. At the same time they encourage such extramural intellectual exercise as debating, elocution and essay writing. All this is laurel fetching as much as sports.

5.3.16 Hostels, Housing and Guesthouse

A metropolitan college catering to metropolitan neighbourhoods may not need a hostel. But universities do, for they have students from various places, even overseas. To accommodate a batch of deputed students from Asian, African and Latin American countries, an institution temporarily turned a part of empty housing into a cluster of suites—a case worth quoting. Of course older institutions have a regular hostel system. It was believed at one time that no higher education institution should be established without any halls of residence. One of the oldest non-residential universities has as many as 18 hostels. In some places separate accommodation is available for research scholars or for married students. Though staff housing is lesser of a necessity than student hostels, residential institutions have both to the brim, and without a sense of constraint, as a pursuit of the ideal that a teaching-learning community must live together. This also applies in a sense to the institution's guests, no matter what business brings them there, whether participating in seminars-conferences-colloquia, lecturing, giving examinations, sitting on staff selection, etc. Hence the need of a guesthouse and all good institutions, residential or non-residential, recognize that, especially those that are not in the thick of a metropolis. Some have more than one guesthouse. A transit house for either guest faculty or newly inducted faculty waiting their turns for residential quarters, is also in order. So is a teachers' hostel housing single faculty. Rabindranath Tagore's idea was to accommodate more like-minded and companionable people on a permanent basis on his institution, Visva-Bharati's fringe so that a bigger community grew around it.

5.3.17 Grievance Redress

Most institutions worth the name have a grievance redress cell or some mechanism to handle student or staff grievance. Some also have a special cell to handle sexual harassment set up in response to the UGC advice a few years ago. It is quite active in certain urban places. Another special cell is there to handle ragging in institutions offering professional courses and running hostels. Not only does it muster opinion among students against ragging but also hears all such cases of juniors' grievance against seniors.

5.3.18 Additional Facilities

Premier institutions have additional facilities worth recording. Some have a resource centre filing classified data useful to research. There are also a few inter-disciplinary research centres getting together faculty and researchers from the humanities, social sciences, pure and applied sciences and technology in such areas as energy, environment and women. Some institutions have UGC-created Educational Media Research Centre (EMRC) or Audio-Visual Research Centre (AVRC) to produce electronic material geared to instructional purposes. For some time now these EMRC and AVRC are under indirect supervision of the Consortium of Education Communication (CEC). The emphasis now in these centres is not so much on audio-video cassette making as on CD production. There are also those institutions, some very old, that have their own printing press and not only take care of office requirement by way of forms and vouchers but also of the confidential work. They have moved over from the letterpress to the desk top publishing (DTP) and it would be worth watching what new quantum of scholarly printing they are veering to. Have the old days of university publishing turned a new leaf?

5.4 Outcome of the Best Practices

How do the best practices in infrastructure and learning resources as enumerated above affect higher education? Do they in themselves assure a better quality education? Of course this cannot be answered singly without reference to the other core criteria in the NAAC layout. However, what can be ascertained is how these practices have a bearing on the other criteria. Can it be said that a good curriculum, good teaching-learning and evaluation, good research, consultancy and extension, good student support and progression, and finally, good organization and management will not be fruitful without a good infrastructure and good learning resources? The answer is obvious, since infrastructure and learning resources are a necessary condition for any higher education programme. The question is about the urgency of their quality. Is it indeed not possible to attain a good programme without a good infrastructure and good learning resources? In other words, the emphasis is on the interdependence of the quality. Of course no mechanical casuality is being courted here by saying that if a good infrastructure and good learning resources are offered a good programme will automatically follow. No, the systemic approach is no exercise in casuistry. All the core criteria are to be equally quality propelled. Only then will the good of the one be reflected in the good of the other. In that way, the insistence on the good of the infrastructure and learning resources is in order and the best practices in them are praiseworthy.

This is when we look at the matter from within the system itself. But higher education is not just a self-contained system in need of continuous tuning, but also a social site.

And there each core criterion can be taken independently and vetted against its impact on society. The curriculum has social implications and can be related to the parameters of planning and development, without of course going too mechanical and losing sight of the long-term dividends (to be information savvy, for instance, is not necessarily to be communication wise). Teaching-learning too and evaluation as well are under public gaze and subject to both critique and commendation. If we scan our newspapers almost every sixth or seventh day we may come across a higher education item dealing in particular with the teaching (the coaching racket not excluded) and the examinations (occasional scandals included). Faculty and institutional research too is often reported, especially if it earns a name and serves public utility. (We can recall here the nearly signed protocol with a G7 country some twelve years ago involving a number of universities and institutes in product oriented advanced research in such areas as energy and information.) By definition consultancy has a broad orientation and implies nitty-gritty service rendered to society by a higher education institution. In a sophisticated form it comes under the industry-institution collaboration. As to how students are facilitated in an institution and what it continuously does looking after their well being and help to assure their future is, of course, very much under public scrutiny. So is the institutional management. We can cite more than one recent instance of the management being invoked in the name of public interest. Now, to what extent are the infrastructure and learning resources of an institution part of social good? It cannot be denied that a well laid-out campus or well-maintained premises fetch appreciation and we would want our wards to go there. This makes special sense if the library is good, if there is a regular computer centre there and if there are other facilities including health care, halls of residence and sports. In fact there is an informal public vetting of higher education institutions not merely in terms of their curricular range, faculty fame and examination results or student support, but also of their facilities and resources.

Society is both the source and the recipient of higher education. Even if it is not fully state financed it owes its being to society. Hence the responsibility which it fulfils by producing human resource. In order that its production is foolproof it must take every quality measure and ever strive for more and more quality. Only then can it be true to its social site. As one of the core criteria of higher education, *infrastructure and learning resources* must help sustain that truth.

5.5 Best Practices as Exempla

When Yudhisthira was asked 'kah panthah', 'which is the way', his answer was, 'mahajano yena gatah', 'the way taken by the great' or 'the way taken in consort by many'. Perhaps 'best practices' have room for similar glosses, practices by the best, practices held out to be the best. When we come to the issue of following, it may be

better to confine to the latter. Let us go by what has come out to be the best from our reading of the practices on the part of the better-graded institutions—the normative arrived at from the pragmatic. But what does following mean—adopt or adapt?

Adopting would pose a number of problems, for ours is a diverse country and our higher education institutions have diverse antecedents. Some have come out of immediate necessity, some out of long and careful planning. Some are dedicated to this ideal, some to that ideal—though all to the spread of higher education. The catchment areas too are diverse. Some cater to the neighborhood, some cater to a wider area. Then there are those—no matter how few—that cater to the whole country. Besides, some are rural, some are semi-urban, some fully urban, some metropolitan. The background of the boys and girls seeking admission to the collegiate courses is also varied in social and economic terms. We cannot count out the first generation college goers. Then there is the difference between the high literacy and low literacy areas, between the hills and the plains, between backwater and frontline. There are other constraints as well. In some places the junior college is still part of the senior college. In some other places the de-linking is not yet complete. Entropy too is a problem with some old institutions, as novitiate may mean both dearth and false glitter, also brisk vibrancy.

It is quite obvious then that adopting the *best practices* in the sense of emulation is not possible. What is to be done is adapting—adapting the *best practices* to the prevailing situation. Surely the institutions are not to be uprooted, but surely again they are not to stay unchanged. They are to gradually graft the norms of quality—in the present instance those in infrastructure and learning resources—to their singular conditions. If they have a campus they are to maintain it properly. If their campus is overcrowded, they are to explore if they can acquire land in their proximity. Logistics permitting, even acquiring a second campus is advisable. If they do not have a campus and are mere premises, they are to expand vertically and at the same time exercise space management. Their library they are to go on improving in holdings and facilities. Computerization of the catalogue and the services as well as inter-library and other networking are to be done in a phased manner. A computer centre is to be set up, and if it is already there, it is to be improved in order that computer culture can grow. However, there is not to be an imbalance between library holdings and computers, especially in faraway and rural places where access to books is not easy and the book bank facilities are absolutely indispensable and again, where the power supply may not be favourable. Other facilities are either to be created or increased, and their upkeep is to be spruced up. By no means are these facilities to be undermined, but priority is to be given to the learning resources. Thus with these requirements honoured, can the ordinary higher education institutions spread over

the country be set on their way to quality, provided similar care is taken of the other core criteria. And on their way to quality they will surely not lose their specificity. They will belong to their location and serve their singular purpose, only they will do that better.

5.6 Conclusion

The foregoing analysis attempts to spell out in detail the integral unity between infrastructure and the education shaped by it. As the house generates the home within it infrastructure shapes the quality of education provided it is optimally driven to generate the quality. It cannot by itself generate it but how it is driven does the job. The vision with which infrastructure is put together, the purpose for which it is used, the outcome and the impact - all are as much the products of the infrastructure as they are of management. Such co-ordination and vision are necessary to organize and use any infrastructure.

Section B: Case Illustrations

The best practices in the organisation and use of infrastructure illustrated in the following pages bring out the vision and creative management of infrastructure. Whether it has to enhance access, or to develop learner competence, or to initiate technology or to reinforce learning experience - a lot depends on the imaginative use of infrastructure. The best practices capture such imagination underlying them.

Case 1: Sharing of Infrastructure to Nurture Student Talent

1. Objective of the Practice

To provide the-state-of-the-art infrastructure to create adequate scope for the nurture of student talent at undergraduate and postgraduate levels

2. Need Addressed and the Context

Our universities are preoccupied primarily with forms and proceedings of educational activity such as syllabi, examinations and sports. Adequate attention is not bestowed upon spotting and nurturing talents, which develop one's personality. Moreover the constituents of our universities are diverse: affluent colleges, poor colleges, urban colleges, rural colleges, etc-all lying apart in different regions. Providing opportunity

for students to come together for mutual interaction, exchange of ideas and development of skills is a felt need. Sharing of the infrastructure of colleges and universities may partially help to meet the need.

3. The Practice

The practice facilitates the conduct of the annual Youth Festival in different geographical zones in rotation so that urban undergraduates and postgraduates may be given an opportunity to know their poor cousins in the rural areas and *vice-versa.* The auditorium at Churchgate with modern facilities and university departments such as Academy of Theatre Arts, Extra Mural Studies and the Academy of Folk Arts would share their resources for the talent nurture of all students.

4. Evidence of Success

The participation of colleges in youth festival has increased from about 100 colleges to 133 colleges in last 4 years after this practice was introduced. The increase is mainly from colleges in the mofussil area. Also students from the mofussil area have shown noticeable improvement in performance. Students of colleges at Kankavli and Kudal won prizes and gold medals in elocution competitions in English and in the One-Act play this year. Such a result was not possible to obtain four years ago.

5. Resources

Auditorium and other infrastructure facilities are required for conducting events in different locations.

6. The Institution

Name: University of Mumbai
Address: M G Road, Fort, Mumbai - 400 032, Maharashtra
Tel.: 022-22673250, 22652825(O), 022-26864479 (R), Mob: 022-31033188
Fax: 022-22652832 / 22634461
E-mail: panes@fort.mu.ac.in
Website: http://www.mu.ac.in
Year of Accreditation: 2000-2001
Grade awarded by NAAC: A***** (Five Star)
Contact person: Dr. Sudhir Panse, Director, Board of Colleges and University Development

Case 2: Extended Facilities for Student Development

1. Objective of the Practice

To provide extended facilities to develop all-round student potential

2. Need Addressed and the Context

It was felt that all-round development of learner personalities, especially in the context of growing student numbers, required adequate space and structures to meet the challenge. The needs for this expansion are systematically identified, analysed and assessed. The liberal funding by the Management, the Southern India Education Trust and other support have inspired the creation of the present practice and other services including Dyslexia Care.

3. The Practice

The practice is that of augmenting infrastructure such as bore wells, classrooms, auditoriums, inter-collegiate cultural centre, computers and space for student service providers. The management liberally funds the effort. This practice covers a wide range of concerns including linking physical infrastructure to academic growth, providing for greater equity by supporting remedial programmes, counselling, placement services, etc.

4. Evidence of Success

The college was chosen by the official committee to apply for the status of "Colleges with Potential for Excellence". Substantial increase in exam-results and university ranks, and increase in student strength are also evidence of the success of this practice.

5. Resources

Qualified staff to fill in retirement vacancies on government scales of pay, financial incentives for teachers to teach on remedial programmes.

6. The Institution

Name: Justice Basheer Ahmed Sayeed College for Women
Address: 309, Mount Road, Chennai-600 018, Tamil Nadu
Tel:044-24350395(O), 044-23742923(R), Mob:09884234953 Fax:044-24364533
E-Mail: jbasinet@vsnl.com, Website: jbas college.com
Year of Accreditation: 1999-2000
Grade awarded by NAAC: A ***** (Five star)
Contact person: Dr. Salma Salahuddin, Principal

Case 3: Technology Assisted Pedagogy

1. Objective of the Practice

To align curricular transaction with technology assisted methods

2. Need Addressed and the Context

The practice addresses the needs of the trainee-teachers and school teachers. Fast development of technology has provided both hard and software which have opened the way for updating traditional pedagogy. If trainee-teachers and school teachers are made conversant with education technology, pedagogy will hopefully make a salient impact on learners, neighbourhood communities and society. The need is to provide such training for such a purpose.

3. The Practice

The practice envisages reorganizing teacher training to be given in three phases: orientation to new pedagogigal concepts and practices; practicals in pedagogical analysis, devising new strategies and using technology for these purposes; and SWOT analysis of practice.

4. Evidence of Success

Hard and softcopies made of the computer-assisted instruction packages are widely used by schools and teacher educators. The effort received the commendation of NAAC and NCTE.

5. Resources

Technology resource centre, expertise of teacher educators and computer specialists

6. The Institution

Name: St. Xavier's Institute of Education
Address: 40-A, New Marine Lines, Opp. State Bank, Churchgate Branch
Mumbai - 400 020, Maharashtra
Tel.:022-22014666(O), 022-22069841 (R), Fax: 022-22094178
E-mail: sxie_bed@born8.vsnl.net.in
Website: bedxav.org
Year of Accreditation: 2004
Grade awarded by NAAC: A +
Contact Person: Dr. (Ms) A. Vaz, Principal

Case 4: Use of Infrastructure for Social Transformation

1. Objective of the Practice

To use campus resources for setting up a medicine-men network of a select tribal group and for documentation of ethno-medicinal biodiversity involving inter-departmental collaboration

2. Need Addressed and the Context

The tribals of Gujarat (who form a significant 15% of the total population) have rare practical knowledge in the rearing and use of rare medicinal plants. Of late their displacement and migration have endangered both the herbs and the knowledge, and affected the eco-balance and bio-diversity of the region. This has necessitated expeditious action to save them in time.

3. The Practice

Xavier's College campus has over 900 species of plants including several plants of ethno-medicinal significance. The taxonomic analysis and study of these plants have been done through inter-disciplinary research involving staff and students of the Botany, Biochemistry and Biotechnology departments and the Xavier Research Foundation. Documentation of uses and its preparation in CD format have been done.

Though the plan was to invite tribal medicinal practitioners once in three years, the practice has been so successful that they were called oftener and they have already visited the campus three times in the last four years and interacted with students. Students learn from these practitioners the uses of various medicinal plants and document the data. They, (students and staff) in turn are expected to study the same scientifically so that at some future date they may be able to patent the same and use the knowledge for the betterment of society at large.

4. Evidence of Success

The three-year project entitled "People-Forest-Laboratory Linkages for the Conservation of Ethno-medicinal Biodiversity" funded by the Gujarat Ecology Commission has been successfully completed. One hour long programme on the project was broadcast by All India Radio, Vadodara on two consecutive days. A programme for Doordarshan has been recorded and will shortly be televised. Five mini-forests with ethno-medicinally significant plants have been set up in an Ashram Shala, a middle school, two high schools and a girls' boarding school in the tribal

belt over and above the ex-situ conservation at St. Xavier's College campus. A CD containing information about 100 most significant ethno-medicinal plants of the Vasava tribals will be released shortly.

5. Resources

Land, expertise and finance are the various resources needed for the project. The college has a campus of nearly 26 acres. Some of it is used for ecological projects. The college has a part time Estate Manager who hires out the grounds to raise funds. Faculty of the college offer consultancy services to the state and other agencies. The college also receives financial assistance from donor agencies. Staff members have been involved in the implementation of the project.

6. The Institution

Name: St. Xavier's College
Address: Ahmedabad-380 009, Gujarat
Tel.: 079-26308057(O), 079-26301075 (R)
Fax: 079-26303421
E-mail: parmarf@jesuits.net
Website: http://www.xaviersahmedabad.org
Year of Accreditation: 2000-2001
Grade awarded by NAAC: A★★★★★ (Five star)
Contact person: Rev. Fr. Francis G. Parmar, SJ, Principal

Case 5: Development of Infrastructure to Match Academic Growth

1. Objective of the Practice

To develop infrastructure through phased introduction of need-based courses

2. Need Addressed and the Context

Conventional academic programmes require a change in order to make them relevant to modern times and to enhance employment opportunities. Hence the need for introducing need-based courses.

3. The Practice

The practice of introducing select need-based courses in order to make employment opportunities available to students of the college has the necessary corollary of creating corresponding infrastructure. To promote research activity Adjunct Professors are appointed in many departments. New buildings, instruments, labs and computers were added.

4. Evidence of Success

Several need-based courses have been introduced accompanied by growth in infrastructure. Several minor research projects have been sanctioned to faculty members. Twenty persons are pursuing research leading to Ph.D. Degree. Five persons have been awarded Ph.D. Degree.

5. Resources

Existing infrastructure with additional facilities

6. The Institution

Name: Birla College
Address: Kalyan (W)-421304, Maharashtra
Tel.: 0251-2230740 (O), 0251-2230373 (R), Mob: 09820888494
Fax: 0251-2231029
E-mail: akunjl@indiatimes.com
Year of Accreditation: 2002
Grade awarded by NAAC: A***** (Five star)
Contact person: Dr. Naresh Chandra, Principal

Case 6: Infrastructure for Holistic Student Development

1. Objective of the practice

To provide first-rate infrastructure and learning resources to facilitate holistic development of student potential

2. Need Addressed and the Context

Students of the college pursue specialized vocational programmes in Information Technology, Visual Communication and other sophisticated arts and sciences. Being women they are more culture and arts (specifically performing arts) sensitive, which

in turn demands extensive cultural activities. Sports also demand greater encouragement because of their increasing importance in the world. As a result of this contextual development, more curricular and co-curricular activities have to be designed. Accordingly considerable augmentation of infrastructure to realize these goals is indispensable.

3. The Practice

The Practice is that of making adequate provision of state-of-the-art infrastructure such as technology centre, studios, hi-tech computer labs, designing equipment, etc; providing student support services and building corresponding administrative structures. Sports facilities and intercommunication facilities are also provided.

4. Evidence of Success

The practice has led to many achievements such as academic honours, awards in sports and culturals. The college has produced an Arjuna Awardee; It sent one athlete, Harwant Kaur, to Athens (Greece) for participation in Olympics and in 2000 the dance team won the World Championship in Adult Folk Dance at Wales, UK. This led to many cultural exchange programmes between BBK DAV and UK and the signing of many MoUs. The evidence of systematic and meticulous planning and execution is reflected in the successful completion of a number of construction projects at lower than estimated cost and shorter time span.

5. Resources

Financial input to build structures and buy equipment is necessary. The money is raised from donations. It also uses other sources such as UGC Grants, grants from local MLAs and MPs, special interest free loans from students, donations from philanthropists and nominal charges for the upkeep by lending the infrastructure to external agencies.

6. The Institution

Name: BBK DAV College for Women
Address: Lawrence Road, Amritsar-143 001, Punjab
Tel.: 0183-2221757, 5095263, 2221009(O), 0183-2221009 (R)
Mob: 09872822214, Fax: 0183-2229937
E-mail: bbkdavcw@jal.vsnl.net.in
Website: bbkdav.org
Year of Accreditation: 2004
Grade awarded by NAAC: A +
Contact person: Mrs. J. Kackria, Principal

Case 7: Training Students to use College Library Resources

1. Objective of the Practice

To make students aware of the available library resources and services

2. Need Addressed and the Context

Students are fast losing their habit of visiting libraries to read; even if they do, their reading is confined to prescribed texts. They hardly look around to peruse other books in their college library. The need is to introduce the habit of visiting the library more frequently to look at books of various types and to utilize the services available.

3. The Practice

The practice involves the organization of book exhibitions. In order to promote focused reading the exhibitions are organized on chosen themes. Most of the books of the library are the exhibits. A quiz is organized to promote reading widely and in depth.

4. Evidence of Success

A large number of students visit the exhibitions. Many participate in the quiz. Also book transaction records show that the reading habit of students is on the increase.

5. Resources

Books in the library and co-operation of the library staff

6. The Institution

Name: Sathaye College
Address: Dixit Road, Vile Parle (E), Mumbai - 400 057, Maharashtra
Tel.: 022-26141149, 26130608(O), 022-26601838 (R)
Fax: 022-26141149
E-mail: kavita_rege@rediftmail.com
Website: sathayecollege.com
Year of Accreditation: 2004
Grade awarded by NAAC: A
Contact person: Dr. Kavita S. Rege, Principal

Case 8: Computer Education for All Students

1. Objective of the Practice

To equip students with skills in computer operation for meeting basic academic needs

2. Need Addressed and the Context

The need to improve the employability of undergraduates is addressed by this practice.

3. The Practice

All undergraduates are given compulsory computer training. Those who are non-computer students and do not have the facility to operate computers are given a separate computer lab in order to acquire minimum computer knowledge at the degree level. Final year degree students are offered a six-month short term course.

4. Evidence of Success

Many have picked up adequate computing skills; some have found it useful to seek employment.

5. Resources

Faculty, computers, technical assistance

6. The Institution

Name: Sri Y.N. College
Address: Narsapur - 534 275, West Godavari Dist. Andhra Pradesh
E-mail: sriyncollege@rediffmail.com
Year of Accreditation: 2004
Grade awarded by NAAC: A
Contact person: The Principal

Case 9: Involving Students in Maintenance of Infrastructure

1. Objective of the Practice

To promote a sense of belonging to the institution among students and to express such belongingness in the responsible handling of, and care for, infrastructure

2. Need Addressed and the Context

All the classrooms in the college and other areas were electrified appropriately. Fours years ago some indulged in violence and disconnected electric wires and damaged lights in class rooms. The college made successful efforts to convince students about the need to solve the problem and restore damaged property. The students were made partners in providing and maintaining new electrical installations in the classrooms.

3. The Practice

The practice promotes student-Management partnership by subsidizing cost of installations and maintaining them responsibly. Thus students contributed Rs.20/-. The faculty follwed by making generous contributions. Now fans and lights are provided in each classroom. Students are motivated to keep the campus clean and neat. Now every student of the first year pays Rs. 20/- and becomes a partner in maintaining the college campus. The practice has been successfully followed for the past four years.

4. Evidence of Success

Because of this partnership between students and the administration no damages are noticed in the electrical installations and the staff are extensively using audio visual aids in classrooms.

5. Resources

Funds to update infrastructure

6. The Institution

Name: VVM's Shri Damodar College of Commerce & Economics
Address: P. O. Box No.347, GR Kare Road Comba
Margao, Goa - 403 601
Tel.: 0832-2714224 (O), 0832-2735244 (R),
Mob: 9810146117, Fax: 0832-2732084
Year of Accreditation: 1999-2000
Grade awarded by NAAC: A*** (Three star)
Contact person: Dr. I. Bhanu Murthy, Principal

Case 10: Book Reading Competition

1. Objective of the Practice

To make students read select literature at their own pace

2. Need Addressed and the Context

It was observed that the affinity for reading books beyond syllabus was obviously on the decline amongst the student community. The Principal and members of the Library Committee came out with an excellent stimulus to activate habits in students. The idea behind this *'Granth Vachak Spardha'* is to make students read select literature at their own pace.

3. The Practice

The members of the library committee and language experts select a set of at least 25 books which include mainly life sketches of eminent personalities, autobiographies and award winning literature. Students enroll in the competition at their own will. Systematic and planned book issuing is monitored. Perceptions of individual readers of each book are recorded in writing. The winners are appreciated and given cash prizes. All this helps to nurture and enhance reading as well as summarizing abilities of students from all disciplines - a curative measure in its best-accepted form.

4. Evidence of Success

Student enrolment to the competition has increased. Reading habits of students have improved. Book issue in the library has increased.

5. Resources

Does not require any additional resource

6. The Institution

Name: Vidya Pratisthan's Arts, Science & Commerce College
Address: Vidyanagari, Baramati, Dist. Pune, Maharashtra - 413 133
Tel: 02112-243714, 243488 (O), 02112-243832(R), Mob: 09822331857
E-mail: assoolad@yahoo.co.in
Website: www.vidyapratishthan.org
Year of Accreditationo: August 2003
Grade awarded by NAAC: A
Contact person: Dr. Arun Adsool, Principal

Chapter VI

Best Practices in Student Support and Progression

Kuppuswamy Rao K
Jagannath Patil

6.0 Student support and progression is a very important parameter in the assessment of quality of education imparted in any academic institution – a college or a university. Student support in the broadest terms is the gamut of all activities that help in the progression of students in their studies, acquisition of skills for employability, inculcation of values and overall development of personality. The range and the quality of student support services differ from institution to institution. Many factors contribute to the development of student support services and to the sustenance of their quality. These are individual and institutional care as expressed in high quality infrastructure, chiefly, efficient library services; arrangements to spot and nurture talent; mentoring for academic development; placement and counseling services. The competitiveness of an institution to attract best students, its status, the socio-economic, educational and cultural ethos in which the institution operates and the public accreditation it enjoys depend on the effectiveness of such arrangements. This chapter presents some of the best practices observed in institutions that provide good support to students. While Section-A highlights the broad criteria to identify and adapt best practices, Section-B presents specific case illustrations.

Section A: Framework

6.1 Introduction

Many institutions believe that student support is limited to making available good teachers, good class rooms, good library and spacious play grounds. But today, students and parents expect an academic institution to provide other support services in addition to the routine services limited to learning and studying in a classroom with the mediation of a teacher. It has been established that the range and quality of student support services have a direct bearing on student progression – successful completion of the programme, reduced rates of failures and dropouts, performance in co-curricular, extra-curricular and extension activities. The argument that many students do not take advantage of support services provided to them is to be examined. Either lack of information about them or a failure to disseminate information about the benefits

such services have given to learners in the short run and in the long run, may be the reason for such neglect.

Student Support services may be broadly classified as:

- information services
- registration and records services
- tutorial and remedial services
- counselling services
- library services
- value addition services
- institutional networking services
- career guidance services
- placement services
- feedback services
- alumni services
- community services
- student welfare services.

Providing these services of a reasonable quality requires making appropriate investments in human and financial resources and evolving administrative arrangements at appropriate levels. This itself will be possible only if necessary policy decisions are taken at the highest management level and an implementation apparatus is evolved.

It is to be emphasized that availability of support services is different from the accessibility of these services to all students. The heterogeneity of student population in regard to their socio-economic–geographical backgrounds, language and cultural differences, calls for internalizing the quality culture and institutionalizing the dispensation of the support services.

6.2 Criteria of Best Practices

Criteria of best practices refer to the standards set by best practices. Best practices are dynamic and continuous or /and are the result of identification, experimentation, reflection, feedback and innovation based on experience. Best practices must be amenable to documentation and have the potential for replication; they should be transparent, accountable, affordable and accessible to all students. Best practices should result in change for the better and help students to realize their full potential during and after their studies. They should lead to optimum performance of students in all activities – academic, personal, interpersonal and co-curricular. They should also contribute to learning outside the classroom and should not take for granted learning challenges and systems. Best practices related to student support and progression

embrace all activities that take place from the pre-entry contact with the institution to the point of exit and beyond. Let us consider now some of the sub-sub-systems like information, registration, enrolment, student records, student management, welfare activities, financial support, library, learning environment, teaching, tutorials, counselling, leisure activities and examination, which are the sub systems of student support and progression.

Student information system should make available to students detailed information on the programmes on offer, availability of choices, minimum entry requirements, admission policy, academic calendar, fee structure, refund policies, examination system, promotion and detention rules and avenues for financial support available to various types of students. All this information is made available to the student in the form of a prospectus which is sold along with the application for admission. But this information may not be available unless a student purchases the application form. The language and the jargon cannot often be understood by all students. The clarity and brevity with which the information is updated, revised and provided to students form an important criterion for the Best Practices in these sub-sub-systems.

In today's knowledge society with alternative forms of communication systems, in addition to the print medium, this information can be made available through internet and website. Internet and website information, if made available to public at large, a poorly managed website, poor quality of information, uncertainty of access, lack of correctness and obsoleteness of information may become counter-productive and may turn out to be a bad practice instead of a best practice.

Registration and student records services are a part of administrative services. To qualify to be Best Practices these services must be student friendly and operate in an affirmative environment. The administrative staff must be trained to be supportive of student needs and exhibit patience to deal with student queries. Maintenance of student records, constant updating of student files, and quick retrieval of information call for technology mediation in the process. One benchmark of a best practice is the careful planning of computer aided maintenance of student records. The day may not be far–off when institutions use Information Kiosks or the call-centre approach, where students can readily access any non-confidential information directly in 24/7 mode on-line without having to visit the office of the institution.

Academic support services to qualify for a Best Practice shall recognise alternative pathways to learning. Catering to individual differences, slow learners and advanced learners by providing tutorial and remedial support in difficult areas of learning, encouraging students sharpen their listening and writing skills, improving

communication skills and overcoming language barriers, will contribute to make academic support in an institution a best practice to be emulated by others. Technology support in classroom teaching – using multimedia - as a learning support device is also a criterion to make academic support a best practice.

Counselling support services will contribute to enable students to overcome their inhibitions, mindset and societal and linguistic barriers. The advice, help and support given by a trained counsellor would enable a student to make satisfactory progress. At the pre-entry level students have a right to know what their expectations are when they opt to study a subject or an area of study. Counselling support has two dimensions – counselling on academic related issues and personal issues. Academic related counselling pertains to advising the applicants on choice of programmes and courses, protocols of administrative nature, tasks and dead lines, participation in co-curricular and extra curricular activities and expected behaviour patterns on the campus. Personal counselling by a trained counsellor would help students to familiarize them with social etiquette, peer group interaction, attitudinal changes which can help them to overcome emotional problems besides reducing dropout rates consequent upon non-academic and non-financial reasons. The preparedness of an institution to provide counselling services on the campus as well as the quality of such services is a criterion for best practices.

Library support services would contribute and supplement the teaching and tutorial support services and the progress of students in their studies. Library services are not limited to stocking the library with text books and reference books but must ensure their accessibility to all students. Materials and facilities, information services, reading room facilities and access to internet and reprograph facilities would contribute to make this a criterion for best practices. Open access to the library and computerization of library facilities and a policy on acquisition of the latest books and subscriptions made for discipline-based journals and magazines would be a criterion to make the library support service, a best practice. Last but not least, is the positive attitude of library staff in encouraging students to fully utilize the services available in the library.

Value addition services refer to the facilities which are not included in the syllabus and curriculum but would help the student to face the competitive employment market after successful completion of study. Communication skills, vocational skills, computer skills supplementary to the curriculum would enhance the competencies of students and develop their personality. A good institution would make provision to make available value added services that would give a fitness of purpose to each student and would contribute to 'learning to be'. The quality of value added services and their easy accessibility to all students would be a criterion for best practices.

Networking in all fields of human activity has become inevitable for the survival of any institution. No institution can provide all facilities and services of the best quality to all students. Today's knowledge society has to thrive on the principle of sharing – sharing of resources, experiences and facilities. No institution can survive in isolation. Linkages with industry, national and international institutions for exchange programmes, would provide students with experiences in working together with students form different backgrounds and cultures, test their theoretical knowledge in the field by working with people outside their communities and would be a criterion for Best Practice.

Career guidance and placement services refer to provision of linkages to the campus life of students with the realities to be faced by them when they seek employment or opt for further higher studies. Carrer guidance to a certain extent is provided in the library under information services. But specific information on competitive examinations, choices available in careers, avenues of information, preparation for and acquisition of additional soft skills and motivation and sustenance call for an exclusive cell to cater to the specific needs of students. In present day's context, there is information gap between employers and employment seekers. The curriculum-based education seldom provides the students the skills for employability the prospective employers look for. Campus-based interviews have become a common practice in elite colleges and universities. A benchmark of a best practice is the establishment of a career guidance and placement services department headed by a student friendly officer with required competencies.

Feedback services contribute to self-regulation and mid-course correction in modifying, altering and bettering existing support services. The analysis of feedback studies helps to reduce the entropy in the system. Students join the system with certain expectations and aspirations. But once they are in the system, they may find a gap between what ought to be and what is. Similarly the institution expects certain levels of performance from students. The perceptual differences and communication gaps could be marginalized if quality feedback services are continuously used to utilize the services available at optimal levels. The student feedback on teaching in the classrooms and on the quality of teachers, support services and empathy of the persons who matter to student needs, is an indicator of the performance of the institution at micro and macro levels. The days where teachers and service providers arrogated to themselves the right to decide what is good to the student have gone by. Not only collecting the feedback from students, parents and public at large on the performance of the institutions but an unbiased, systematic and scientific analysis of the collected data to be used as an important input for future guidance makes this service a best practice.

Alumni are the ambassadors of an institution and more often than not, achievements of alumni contribute to the enhanced prestige an institution commands. Though institutions bask in the glory of their alumni, only recently it is recognized that alumni services contribute to the further growth of institutions. Even though examples exist where alumni contributed to the growth and development of institutions, a majority of academic institutions have neither systematically maintained alumni records nor drawn on their expertise and good will. It is only recently that formation of alumni associations is taken up and they involve alumni in student welfare and institutional development activities. A criterion for best practices would be the quality of alumni services.

Community services and extension activities have become a part and parcel of extra curricular activities. Educational institutions draw on the good will of the local community for their survival and growth. Though NCC / NSS wings are generally engaged in these activities, there is a need to coordinate their activities with non-government organizations to achieve optimal results at the field level. A criterion for best practice is the innovation in the existing practices and identification of new thrust areas for reaching the unreached.

Student welfare is a support service which encompasses a variety of services. With the increasing cost of education and entry of students from socially, economically and geographically challenged sections into institutions of higher education, it has become imperative that a best practice would be to ensure that no student would discontinue studies because of non-affordability and financial constraints. Though several scholarships are available to students from socially challenged sections, the financial support may not match their needs. Students not covered by statutory provisions for support find it most difficult to continue their studies because of financial difficulties. In spite of 'earn while learn schemes', 'poor boys aid fund', loans form banks, and scholarships instituted by philanthropists and alumni associations, there are still a large number of students who find it difficult to continue their studies because of financial constraints. In addition, provision for medical and health services, hostel facilities, mechanism to redress grievances and a mechanism to contribute to student welfare would qualify as a criterion for best practice.

6.3 Description of Best Practices

Any best practices in student support and progression should contribute to enhance the quality of student support, help the student to successfully navigate the curriculum, demonstrate acquisition of knowledge and skills resulting in progress and successful completion of study. A best practice shall also equip the student with soft skills to give a competitive edge in the employment market or in further higher studies and

in over all personality development. The study and training shall make provision for participation in off-campus activities to make a student more tolerant to accommodate attributes of a pluralistic society with moral values to make him / her a good member of the community.

The preparation of Information brochure in print and making it available on the website of the institution would help prospective students. The language should be simple, clear and understandable. A section on frequently asked questions (FAQs) and answers to FAQs would help a student clarify his or her doubts without contacting the institution.

Tutorial and remedial services organized in a formal way, incorporating the schedule into the regular timetable would help students. Constant monitoring of progress and record-keeping is essential. An analysis at the end of the year / programme to study the impact of the services and making this an input for improvement would serve the purpose of this support.

Open access to the library and computerization of library services would make the library not only as a repository of books, magazines and journals but as an information dissemination centre. Networking with other libraries would be an added advantage. Keeping the library / reading room open and accessible after working hours would help students utilize the facility optimally.

Reducing the dropout rate would reduce the drag on the system as well the resources. One of the reasons for dropout is the mismatch between expectations and achievements. The second reason may be financial difficulty to continue studies. A student leaving an institution and opting to join other institutions for a better programme of his / her choice cannot be considered to be dropout. This is true especially in science prgrammes where a student takes admission in a basic science course as an insurance – or as a stop gap arrangement till he joins a professional college. Excluding such cases and cases where students secure employment, other dropout cases are to be properly documented. Counselling – academic, personal or psychological – would help reduce dropouts. A regular feed back on support services would identify reasons for discontinuance of studies.

Career guidance and placement services would bridge the gap between educational institutions and the employment market. Training for completing examinations, acquiring competency in communication skills would give a competitive edge to students when they step into the outside – campus world. Campus interviews are common in good institutions.

Education is not just about passing examinations. Provisions for co-curricular and extra curricular activities, activities that help students to interact with the local community would inculcate a sense of belonging to the society, to appreciate cultural differences outside their own environments and to complement study-based knowledge with practical wisdom for good citizenship.

Student welfare is a broad term that encompasses several support services, one important component is financial support services. With increased cost of education many students find it difficult to continue their education. Though several schemes like scholarships of different kinds, loan facilities from banks and awards for bright students are available, they do not cover all the needy. An institution that makes it a policy to help all the needy and ensure that no student is denied access to higher education because of financial difficulties is one that can be identified as the best institution.

6.4 The Impact / Outcome

A critical study of the Peer Team reports of the institutions that received high assessment grades reveal that these institutions have identified the areas that make an impact on prospective students and prepared the existing ones for success. The alumni of these institutions recall that but for the support given to them by the institution during their student days they would not have been where they are now.

6.5 Requirement For Adoption / Adaptation

Leadership is the most intangible requirement in the adoption or adaptation of a best practice. A leader who has the institutional excellence at heart will also exhibit managerial skills in strategic planning and inspire and motivate the staff to put in their best into every activity they undertake. Generating resources, optimal utilization of generated resources to achieve the objectives of the institution, leading the team from the front and yet accommodating individual differences do not have any prescriptive formula for a good leader. And yet when we see one, we can definitely recognize.

6.6 Conclusion

While student support is mostly provided by state-of-the-art infrastructure and arrangements made to provide material support to the needy, student progression itself cannot be provided by them, if they are left unexploited. Organized and systematic exploitation of the services they can provide with imaginative and efficient monitoring alone can generate student progression from student support. Progression is even more than optimal use of infrastructure. If, for example, a language laboratory is well equipped, and open to students all the time, but does not have either skill-

imparting study and practice material or an imaginative teacher who can motivate students in inter-active practice or any enabling schedule of activity that is relevant to student needs, is an excellent piece of infrastructure for student support but it can never ensure the progression it was established for. This applies to all forms of student support such as library services, remedial coaching, even sports. What is immediately necessary is to identify student needs, analyze their complexity, devise appropriate strategies to meet them differentially, if necessary, and circumvent any impediments, social, economic, methodological, institutional or administrative. The test of student progression is, therefore, not how well the support services are optimally accepted, but it lies in the quality of performance which can pass muster in the testing fields of employment, public performance, leadership and value-moulded character. Of these the forgoing framework is an outline.

Section B: Case Illustrations

The case illustrations presented in this section partly demonstrate the concerns expressed at the end of Section A. The best practices include imaginative monitoring of support services such as organized and economic sharing of the vast infrastructure of several institutions under the same Management to meet specific needs, offering of relevant training programmes which are affordable by poor students under the arrangement called "Affordable Training Programme"(ATP), free education for poor but good achievers and others. These point in the direction of both equity and excellence. There are many others that are not recorded. The sampling made here will, hopefully, generate interest and motivation to work for student progression, the expected final outcome of any educational endeavour.

Case 1: Student Counselling

1. Objective of the Practice

To help students in their personal development and in building self-confidence to manage their own problems and those of others

2. Need Addressed and the Context

The students who are shy and withdrawn need help to become expressive and get socialized. Those who are less privileged and disadvantaged need guidance from different sources. The talented may need advice to take part in inter collegiate / inter university competitions. The students who are in conflict with family members, friends and teachers also have to be counselled to build positive relations, attitudes and behaviour. These needs are addressed by this practice.

3. The Practice

Teachers are trained in the basic principles, strategies, approaches of counselling, and in the responsibilities of a counsellor as well as the scope and limits of counselling students. A group of 25 students has one counsellor. Every alternate week, a counselling session is organized. Building support and relationship among students is the heart of the counselling process. Cognizing special needs, individual and group counselling take place. During the counselling session, student-friendly activities such as role-play, singing, playing musical instruments, enacting, puzzle play, word games and quizzes are organized to promote joy and happiness among students. Weak learners and those who find studies difficult are advised suitably to receive extra help and coaching from senior students / class mates. Some students who over react to petty problems or get preoccupied with anxiety, fear and tension are counselled and helped to feel comfortable and composed. Health counselling is also a part of the programme.

4. Evidence of Success

Student and alumni evaluation shows that this practice has helped them to feel relaxed, free to talk, share and communicate better on matters other than formal learning.

5. Resources

There is no financial commitment in this programme. Staff needs training in counselling to make it an effective process. The Department of Psychology and the Department of Human Development train the other staff to become competent counsellors. Consultative help is drawn from professional counsellors, psychiatric consultants, staff of family court and family counselling centre whenever necessary. Teachers maintain record of all the activities during counselling. Parents are informed about the special needs of their children if any. Review meetings are held to maximize benefits.

6. The Institution

Name: Avinashilingam Institute for Home Science and Higher Education for Women
Address: Bharathi Park Road, Coimbatore- 641043, Tamil Nadu
Ph: 0422-2443219/ 2440553
Fax: 0422-2438786
E-Mail: drnjaya@yahoo.com
Website: www.adu.com
Year of Accreditation: 1998-99
Grade awarded by NAAC: A★★★★(four star)
Contact Person: Dr. Saroja Prabhakar,Vice-Chancellor

Case 2: Affordable Training for Proficiency (ATP)

1. Objective of the practice

To help students face the competitive employment market after successful completion of study

2. Need Addressed and the Context

Not long ago, girls were not very much serious about employment or entrepreneurship especially in the state of Chattisgarh where the combined population of SC and ST is the highest in the country at 44.7%. But now the scenario has changed and girls seem to be quite serious and conscious about their future. Now their number is increasing, day-by-day, specially in their participation in extra-curricular and extension activities. In this context value addition services can prove to be helpful to them.

3. The Practice

Besides the prescribed curriculum, the short-term courses - Affordable Training for Proficiency (ATP) - offered by the college help in developing the personality of students. A wide variety of these value added courses fulfil the purpose of each student. Along with their undergraduate or postgraduate course, students can develop their communicative, vocational and computer skills.

A number of self-financing short-term certificate courses (more than 26) Affordable Training for Proficiency (ATP) are running successfully in the institution. These courses are organized from the month of July to January every year ranging from 10 days to a maximum of 6 months. The timetable of these courses is prepared well in advance and displayed on the notice board at the beginning of the new session. These courses are open to students of all branches and all classes. In special cases, concession is also given to students of economically weaker sections, on demand. Feedback of students is obtained after every course and necessary changes are made in the future courses. With the help of ATP students upgrade their skills in various fields. The fee income from the courses is utilized for the beautification of the college campus, and for social and extension activities.

4. Evidence of Success

In the past 2 years about 1600 students have benefited from ATP. Exhibition cum sale of the goods produced in these courses, definitely favours the "Earn & Learn Scheme" Students of other colleges and even housewives show keen interest in ATP. This is the evidence of success and popularity of ATP. Students of the diploma in

dietetics work as dieticians in almost all the hospitals of Chattisgarh and even outside the state.

5. Resources

The college provides infrastructure for such services. The services of experts and professionals from various fields are employed in order to provide quality to ATP. To provide easy accessibility to all students, the timings are adjusted and training is provided in batches. The fee structure is also kept at a minimum. All the decisions regarding ATP are made by a committee, which consists of a co-ordinator and a team of five members.

6. The Institution

Name: Govt. D.B. Girls' P. G. (Autonomous) College
Address: Kalibadi Chowk, Raipur (Chattisgarh)-492001
Ph: 0771-2229248 (O), 0771 - 2427942 (R)
Fax: 0771-5081062
E-Mail: dbgirls@yahoo.co.in
Year of Accreditation: 2003-04
Grade awarded by NAAC: B++
Contact person: Dr. Geeta Tiwari, Principal

Case 3: Providing Personalized Mentor Assistance to Poor Students

1. Objective of the Practice

Providing personalized attention to needy students through a mentor system

2. Need Addressed and the Context

Students need individual attention and encouragement for academic, co-curricular and sports activities. They also need personal attention. This practice addresses these needs.

3. The Practice

Academic needs of slow learners are taken care of through extensive remedial teaching. Incentives like awards from the college and old students, extra work like projects and assignment are given to academically bright students. Healthy inter-personal relationship prevails between teachers and students because of the Mentor system.

Attending weekly value education classes and career counselling sessions are made compulsory for all students.

Facilities such as Free Meals Scheme, book bank and fee waiver for needy students are provided by the Welfare Committee. Needy learners are given summer jobs. About 25 short-term courses are conducted for skill and personality development. Rescheduling college hours enables students to take part-time jobs and/ or short-term courses.

4. Evidence of Success

Graduates are engaged by reputed corporate companies. Non-government organisations, welfare departments, the media and colleges have employed students of the college. Reputed national institutions have employed old students. Many alumnae are prominent public figures.

5. Resources

Committed teachers spare time to provide remedial teaching; services of experts such as doctor, counsellor, career counsellor, motivator; and contributions from alumnae and present students and staff are required to follow the practice.

6. The Institution

Name: Jyothi Nivas College
Address: Hosur Road, Bangalore-560095, Karnataka
Ph: 080-25530137(O)
Fax: 080-25533886
E-Mail: info@jyotinivas.org
Website: www.jyotinivas.org
Year of Accreditation: 1998-99
Grade awarded by NAAC: A★★★★★(five star)
Contact person: Rev. Sr. Dr. Philomena, Principal

Case 4: Placement Cell

1. Objective of the Practice

To ensure that students are well placed

2. Need Addressed and the Context

In order to ensure that students are well placed, colleges have to support them in the development of soft skills and communication skills. Students may also need training for taking competitive examinations. Certificate Courses, on-the-job training and add-on courses can partly address this need. The Placement Cell is the formal strategy created to meet the need.

3. The Practice

The placement cell has six teachers representing arts, science and commerce groups with a senior teacher as Co-ordinator. All the students of the final year class can register with the Placement Cell with 10 copies of their curricula vitae and a nominal sum of Rs.50/- each for campus interviews.

Throughout the year the Cell organizes activities such as career guidance, career fair, lectures by corporates, tests, etc. Campus Interviews are conducted for outgoing students from December onwards regularly on all Saturdays and Sundays. As many as 52 corporates from the public and private sectors have registered with the Cell and they hold campus interviews. Tie-up with *Times of India* and walk-in interviews are conducted in June. The Cell arranges for part time jobs. "Earn While you Learn" programmmes are also arranged with the help of Canara Bank, Indian Overseas Bank and Women Entrepreneurs Bank. The latter also provides loan for enterprising students for viable projects.

4. Evidence of Success

As many as 400 students get placed every year.

5. Resources

A secretariat with a computer clerk monitored by teachers continuously corresponds with outside agencies. Resources are through sponsorships, registration fees and college contribution.

6. The Institution

Name: Ethiraj College for Women
Address: Ethiraj Salai, Egmore, Chennai - 600008, Tamil Nadu
Ph: 044-28226795(O), Fax: 044-28282014
E-Mail: ethiraj_princy@yahoo.co.in
Website: www.ethirajcollege.org
Year of Accreditation: 1999-2000
Grade awarded by NAAC: A*****(five star)
Contact person: The Principal

Case 5: Financial Support Services

1. Objective of the Practice

To help students who have financial difficulties

2. Need Addressed and the Context

No students should be denied access to higher education because of financial difficulties. Students who are in financial difficulty may need fee concessions, books, scholarships, etc. Efforts to contact poor children at their homes to persuade them to acquire education may be useful. This practice addresses these needs.

3. The Practice

Students getting 75% and above in their Board Exams are given free education. They pay only university charges. In case of poor meritorious students, even university charges are refundable in the form of scholarships. A new set of books from the Book Bank is given to such meritorious and poor students. Poor students are given free admission forms. Students of government schools who are not able to pursue college education because of financial difficulties are identified with the assistance of the Principal concerned and they are helped to continue studies. Fifteen very poor students are selected for totally free education during the current academic year. Other measures (like part-time jobs in offices) are also being taken to help them to meet their basic needs.

4. Evidence of Success

Increase in the number of students in the college is an evidence of success.

5. Resources

Management fund, poor students fund and donation from teachers, industrialists and parents

6. The Institution

Name: G. V. M Girls College
Address: Murthal Road, Sonepet-131001, Haryana
Ph: 0130-2234963 (O), 0130-2240530 (R), Fax: 0130-2218963
Website: www.gvmgc.net
Year of Accreditation: 2002-03
Grade awarded by NAAC: A
Contact person: Dr. Jyoti Juneja, Principal

Case 6: Obtaining Feedback

1. Objective of the Practice

To improve student instruction and services through student feedback

2. Need Addressed and the Context

Students, the prime stakeholders, have their own set of priorities and needs. Insensitivity to them may render the educational effort of the institution partially ineffective. An assessment of their perceptions is necessary for imaginative planning and effective performance. Hence the need to obtain their feedback.

3. The Practice

The institution chalks out a feedback calendar at the beginning of the academic year. The feedback forms are available in both Kannada and English. After collection, the feedback is analysed, and the outcome is classified into six categories based on the six NAAC parameters. The Principal, the Vice-principal and the Life-member of the Board take the decisions on the basis of the report, thus involving the Management in the action. The Feedback Report acts like a much needed change catalyst.

4. Evidence of Success

From 2004-2005, the Department of Post-Graduate Studies in English has been functioning according to the needs expressed by students. The Placement cell and the Grievance Redressal Cell were activated. Some teacher vacancies were filled.

5. Resources

Alumni Association Fund, UGC Development Grants, financial assistance from the Management are the sources to meet the expenses towards stationary, computer assistance and other expenses. Human resources are needed in analysing the feedback and interpreting it.

6. The Institution

Name: KLE Society's Lingaraj College
Address: College Road, Belgaum - 590001
Ph: 0831-2420027/ 2464138 (O), Fax: 0831-2427589
E-Mail: principal@klelingarajcollege.com
Website: www.lingarajcollege.com
Year of Accreditation: 2003-2004
Grade awarded by NAAC: A
Contact person: The Principal

Case 7: Involvement of Alumni in Student Development

1. Objective of the Practice

To establish partnership between alumni and Management in the on-going development of the college

2. Need Addressed and the Context

There is a need to make students aware of new career trends in the job market. New skill- based courses that can create better job opportunities for undergraduate students need to be introduced. The experience of alumni in the world of work may help in addressing this need, specially in the North East where there are many influential old students in key positions.

3. The Practice

Regular meetings are scheduled between the alumni (office bearers) and the college Management. Alumni are involved in the planning, feasibility studies, finance generation plans and the implementation of the new projects and professional courses of study in the college. At the beginning of each academic session, the office bearers of the alumni associations (Secuda) work out details of the Career Guidance Cell of the college. Their involvement as guest lecturers is co-ordinated with the activities of the local Rotary unit that oversees its operations. Some alumni members (retired & senior bureaucrats) form part of the team that helps to prepare students for entry into banking, UPSC and defence services. Presently a course on Human Rights is a new addition. The involvement of alumni (especially public servants and members of the judiciary) has strengthened the association with students further.

4. Evidence of Success

The rapport established between alumni members and present students has elicited a good response from students both in the attendance and participation in these programmes.The readiness and commitment of some alumni to approach certain government and non- government agencies to raise finances to help in the setting up of new departments and additional infra-structural facilities have greatly benefited present students.

5. Resources

Space for alumni office, secretarial assistance and the use of computers and xerox facilities for alumni projects

6. The Institution

Name: St. Edmund's College
Address: Laitumkhrah, Shillong, Meghalaya
Ph: 0364-2223234 (O)
E-Mail: steds@sancharnet.in
Website: www.sec.shillong.org
Year of Accreditation: 2003-2004
Grade awarded by NAAC: A
Contact person: The Principal

Case 8: Social Bonding Through Community Service

1. Objective of the Practice

Involving students in the process of social up-liftment of the downtrodden masses and thereby developing leadership qualities among students

2. Need Addressed and the Context

There are many areas of community needs where the participation of students would develop leadership qualities among the youth. Women education and awareness campaigning on health and sanitary conditions, are a few to mention. These services are in conformity with the aims and objectives of the institution. There is a need to design these activities is such a way as to foster all-round development of students for empowerment and leadership.

3. The Practice

The college has adopted a nearby locality. Students from different streams and subjects are encouraged to study the problems, which appeal to them and then attempt to find necessary solutions. The institution expects them to submit their project reports with considered solutions. If found relevant, after scrutiny, the Internal Quality Assurance Cell provides them support, financial and otherwise, to pursue the project. While these activities have community service orientation, special care is taken to ensure that they contribute to developing students as leaders of the society.

4. Evidence of Success

Of the various activities undertaken last year, a few of them received wide appreciation from the society and the media. The project on drug abuse among youth done by the Department of Psychology, proved to be highly successful. Various NGOs joined

hands with students to accomplish the targets. English teaching classes for housewives in the adopted locality have also been received well.

5. Resources

The required resources (financial or otherwise) to attain our targets are generated by the institution itself. The alumni, faculty and the employees have always been generous enough to lend their support to any enterprise of the college.

6. The Institution

Name: Govt. M K B Arts and Commerce Autonomous College For Women
Address: Napier Town, Jabalpur-482002, Madhya Pradesh
Ph: 0761-2401300 (O)
E-Mail: mkb_jbp@yahoo.com
Year of Accreditation: 2003-2004
Grade awarded by NAAC: A+
Contact Person: The Principal

Case 9: Networking of Support Services

1. Objective of the Practice

To support programmes of every department by providing quality infrastructure facilities and services

2. Need Addressed and the Context

Academic activity in classrooms needs to be supplemented with a variety of programmes, activities and projects. In order to organize these, it is desirable that an institution provides learners and teachers with infrastructural support such as audio-visual equipment, conference hall, guesthouses, sports facilities, health centre-services, computer laboratories and internet facilities, hostels, libraries and canteen services. Though all these facilities are available, no institution uses these for 24 hours on seven days of the week. Therefore effective and imaginative planning is necessary to keep the maximum number of activities going in all branches and departments, which, in return, contribute to student progress.

3. The Practice

The practice is that of optimal sharing of the vast infrastructure of 25 institutions which function under the Management by co-ordinating, streamlining and

meticulously scheduling their activities. An ethos of mutual care and belonging has been promoted because of this practice. All departments of all the institutions are entitled to use common facilities such as the auditorium, conference halls, health services and guesthouses. The sense that one does not have to own things under the same roof in order to share them prevails.

4. Evidence of Success

Every branch of "symbiosis" organizes a large number of activities, and this has led many youth to choose "symbiosis" for their studies.

5. Resources

The initial investment is made by the parent body. The facilities operate on "self-financing" basis and hiring charges have been fixed.

6. The Institution

Name: Symbiosis Society's College of Arts, Commerce and Computer Science
Address: Senapathi Bapat Road, Pune - 411004, Maharashtra
Ph: 020-25662258 (O), Fax: 020-5651850
E-Mail: syma_c@pn2vsnl.net.in
Website: http://education.vsnl.com/symbiosis_artscomm/sacc
Year of Accreditation: 2003-04
Grade awarded by NAAC: A
Contact person: Dr. Mrs. Beena Inamdar, Principal

Case 10: Remedial Teaching

1. Objective of the Practice

To help students to cope with the demands of course work

2. Need Addressed and the Context

Remedial teaching to acquire language skills in order to speak and write English correctly and with confidence is an urgent need of many students who come from rural areas and backward districts.

3. The Practice

Students are streamed according to abilities by means of a diagnostic test given soon after admission. Teachers who teach methods and English offer remedial programmes through the academic session. Peer teaching is also adopted to help slow learners. Some of these arrangements are internalized in the curriculum.

4. Evidence of Success

Students are able to cope with the course

5. Resources

Staff volunteer to do remedial teaching. So there are no financial implications. The college has the gadget kits and other accessories for communicative English.

6. The Institution

Name: St Ann's College of Education
Address: Sarojini Devi Road, Secunderabad, Andra Pradesh-500003
Ph: 040-27804604 (O), 040-27802806 (R)
Fax: 040-27804604
E-Mail: stanns_college@yahoo.com
Website: www.stannscoe.com
Year of Accreditation: 2002-2003
Grade awarded by NAAC: A
Contact person: The Principal

Chapter VII

Best Practices in Organization and Management

Mariamma A Varghese
Ponmudiraj B S

7.0 The science of Management has provided significant insights to provide quality service. Strategies to achieve organisational harmony through ideal inter-personal relationships, to check the counter-productivity of hierarchy through participatory management, to optimize output through enlightened management and Total Quality Management are only some instances of such insights. As educational management is more human-resource oriented than industry, the NAAC has rightly laid emphasis on organization and management. The best practices in this area have much to contribute to HEIs, which are not run with such insights as those mentioned above and, therefore, are prevented from achieving what they can. Lack of direction, overlaps in administration, conflicts of centers of authority, wastage and many other attendant ills of mismanagement are not uncommon in many of our institutions. This chapter attempts to address these concerns.

Section A: The Framework

7.1 Introduction

All organizations manage their functions with the help of an organizational structure that can facilitate processes of making and implementing decisions. Educational systems are no exception to this. Functions of an educational institution are determined by needs of stakeholders primarily, teachers and learners. They are academic and administrative and they lie within the framework of the institution and its neighbourhood. Marginally they are determined by national and global concerns. These entail academic organization (curricular functions), infrastructure development and external as well as internal facilitation (administrative functions) and the corollary of evaluation of performance (self-assessment and evaluation functions in general). Effective management co-ordinates the optimal use of material and human resources and makes an impact study for further development. All this is done along principles of excellence, simplicity of procedures, social equity considerations and pragmatism of streamlined procedures/processes. The best of the institutions in our country have adopted practices to address these needs effectively. In this chapter some of these best practices are considered.

7.2 Definition and Framework

According to Webster's dictionary, "the Best Practices" have the greatest degree of good or excellence or effectiveness, a state of being proficient through systematic exercise with maximum effort to sustain and enhance the same by repeated exercises. Any best practice has its own characterizing marks or traits.

7.2.1 Range of Functions

Functions of Management have a wide range. They include, among others, the following.

- governance based on the principles of participation and transparency
- governance that facilitates the accomplishment of its mission and purpose.
- clear identification and demarcation of responsibilities
- providing effective leadership with requisite authority and autonomy to manage the institution.
- maintaining academic integrity in the institution's educational programme.
- making periodic and regular reviews of performance for improvement.
- effective utilization of all resources.
- making and administering relevant welfare schemes for all the relevant constituencies.
- fair and expeditious redressal of grievances through a formal mechanism at all levels of the institution.
- effective budgeting and auditing procedures.
- effective resource mobilization and management.

7.2.2 Organisational Structure

Unlike business organizations which have a generally rigid hierarchical structure, educational institutions often prefer less formal arrangements which are participatory, democratic and flexible. This is so because the goals are not commercial. Human resource management needs a fair measure of informality in give-and-take, decentralized sharing of responsibilities as well as decision-making; and autonomy of intellect in both learning and teaching; planning and execution; and performance and evaluation. It is good to bear in mind that the participants in educational management are expected to be nobler than mercenary workers. Hence the need for an enlightened Management.

7.3 Description of Best Practices

7.3.1 Vision & Mission

"Vision" is intelligent and imaginative planning for future and "Mission" is its execution with a sense of zeal and duty-consciousness. An educational organization is primarily

academically oriented and ***student focused***. The best practices of some organizations have helped them envision a strong community orientation, or research focus or learner enhancement or state-of-the-art infrastructure in vital areas of educational activity. The Management is accordingly facilitative.

In order to meet the challenges of the 21st century and to acquire a competitive edge, the higher education system has the mission to accomplish its vision through socially relevant processes (admission policy, for instance) and with the help of modern education technology (in the process of teaching-learning, for example). The Management best practices envisage the turning out of employable and socially sensitive graduates. The quality culture can be initiated only by visionary leadership and achieved by the missionary zeal of the institutional community as a whole.

The value of team work is encouraged by some institutions and the bond created among themselves is through working together for common mission and goals. Many institutions were not consciously aware of any specialized goals before the process of assessment and accreditation was initiated by the NAAC. However, they have formulated them, realizing the need to focus on the same for achieving desired outcomes.

Keeping the mission and goals in mind, some institutions have developed perspective plans for growth and development accordingly. It is a good practice to maintain a master plan providing for the systematic future development of the institution and relating it to the academic planning efforts of other institutions.

The Management of a college has prepared, a well-defined perspective plan for the expansion and improvement of the colleges infrastructure, the launching of new academic programmes and the restoration of the residential character of the campus by expanding hostel facilities. It is quite imaginative of the college to have thought about a long term programme of action, within a specific time-frame for different phases of development. This gives stability and continuity to the institution for further growth rather than sporadic initiatives made by successive leaders in a less-organized manner. Another university has evolved a "Vision-2020" document setting forth the broad direction for its growth during the next 20 years. The same is matched by a strong supportive organizational framework.

7.3.2 Strengthening Higher Education Management through Leadership

Some institutions have realized that the ultimate goal of management is to enhance the institutional mission by ensuring high quality in teaching, training and research, and community services. This objective requires governance that matches the

institution's social vision, and its understanding of global issues, and efficient managerial skills.

The Management needs to be vigilant about changes in the educational environment, locally, nationally and globally. Sensitivity to them by making effective responses depends on visionary and dynamic leadership. Senior leadership in many institutions has set such directions and involved students in the process. They have acquired quality values and set up higher goals that address the needs of all stakeholders. Some private institutions, stand committed to the development of the entire work force by encouraging participation, learning, innovation and creativity throughout the organization by means of their personal commitment to planning, reviewing performance and recognition of employees for their quality achievement. The leaders serve as role models, to reinforce values but the team as a whole is motivated by such leadership to give a quality-lift to the institution. Another institution achieves the same by practising the principle: '***Principal as first-among-the equals***', which integrates the organization for participatory effort.

Leadership provides people with opportunities for personal growth and development in either academics or administration or research pursuits. Another best practice is that of faculty playing the role of mentor in many institutions which facilitates students to be guided personally in small groups or individually. In this way the overall development of students has become a well-marked priority. This has created a strong bond between faculty and students reminiscent of the old *Gurukul system*. In some cases, people are able to take pride and joy in learning/teaching and research accomplishment and this zeal has enabled the educational effort to succeed.

Providing leadership in higher education is thus a major institutional responsibility; it can be significantly strengthened by dialogue with all stakeholders, especially teachers and students. Participation of the teaching faculty in decision making bodies of higher education institutions is facilitated by many HEIs within the framework of current institutional arrangements.

One university has raised the potential of faculty by encouraging them to achieve objectives personally and professionally and for the betterment of the institution. The well-defined administrative and financial rules developed by another university have motivated middle level officers to function in a better organized manner. It follows the '*participatory management concept*' to involve and develop both the teaching and the non-teaching staff ".

7.3.3 Effective organizational structure

Considering the purpose of education in general and the ability to cope with the continuous changes, challenges, constraints and opportunities met from time to time, some institutions have formed informal committees and other functional bodies which complement/ supplement the statutory bodies like Management Council, Academic Council and Boards of Studies with the necessary information and road maps for action. Such a flexible structure provides for formal streamlining and informal participation. Many institutions have decentralized administration and delegated powers to as many organizational centres as possible. This enables mutual responsible functioning.

"In a university, departmental committees and departmental research cells are constituted at the department level to monitor administration and research. University 'X' follows an organizational structure, which is ***functional rather than departmental.*** It has introduced various committees for the smooth and speedy action to be taken in various spheres of activity across departmental boundaries. It is believed that informal committees at all levels have the potential to promote participatory management.

Participatory style of Management and Transparency

Institution 'Z' feels proud of their dynamic management; they call themselves 'College Men'. They meet very regularly to oversee organizational functions. There is easy access of faculty and students to the Management. There is informal delegation of power to Deans and Heads of Departments. All academic and administrative problems are discussed and proceedings of their meetings are recorded and decisions circulated to the entire faculty.

All the faculty members and a large number of students are involved in the administration through various committees like the Academic Committee, Examination Committee, Cultural Committee, Discipline Committee, NSS Committee, Women's Cell, Sports, NCC, Maintenance and Cleaning Committee, Recreation Committee and Drama Club etc. Seniors are involved in counselling freshers. International collaborations facilitate improved management techniques for effective management. Various welfare schemes are in place. The Cooperative Credit Society is functioning successfully.

Resource mobilization is done very effectively. Preparation of the budget, balance sheet, audit report, internal auditing and expenditure control etc. is all done in the most effective manner.

In some institutions, senior students are involved in admission processing, literacy mission, counselling, event management, library services, etc. A combination of formal and informal decentralized mechanisms encourages the team development process across different constituents of the entire organization. This not only decentralizes the system and makes management participatory, but it also makes functions transparent with an emphasis on developing a sense of belonging to the institution and its responsibilities.

In some institutions, the Planning and Evaluation Committee advises the Principal, the Governing Body and the Academic Council regarding their plans for the development of the college, improvement of standards of teaching, student discipline and general welfare activities; and for the general improvement of the college. Internal quality check is made through several committees. Some institutions have constituted central and local managing committees. Some others have internal coordinating and monitoring mechanisms to promote the efficiency of both teaching and non-teaching staff who are assigned special duties according to their capabilities and aptitudes.

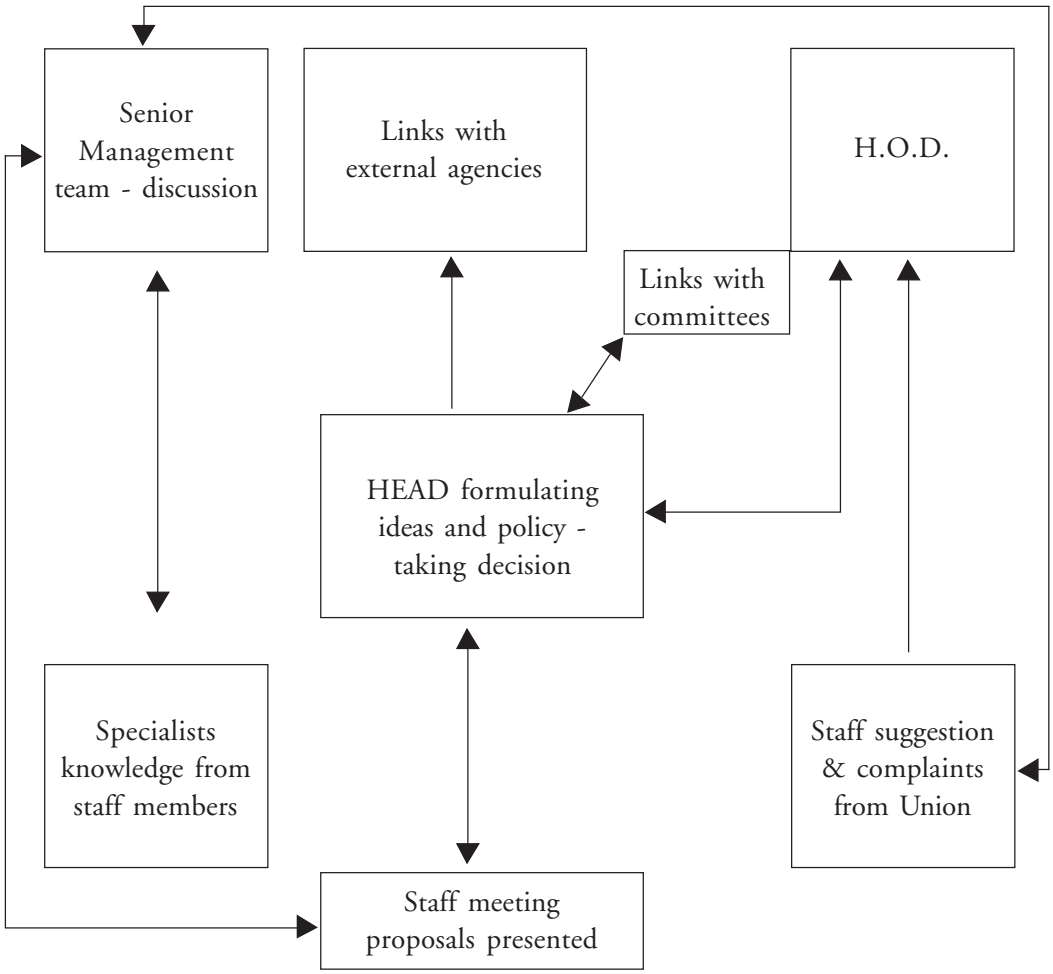
> An institution has constituted a 'College Council' consisting of the Principal, the Heads of the all departments and two elected members of the teaching staff. It is responsible for internal co-ordination, maintenance of student discipline, assessment of infrastructural needs and redressal of staff and student grievances, improvement of organizational and management functioning, monitoring the work efficiency of the non-teaching staff, etc. The impact of this practice is very conspicuous in the creative solutions found to solve many problems.

In this exercise, some of the institutions have made the system functional by adopting the intervention strategy of complementing and supplementing the system by informal mechanisms which has energized the system as a whole. Inclusion of experts from industry and other professional organizations, who have no vested interests, in committees makes the system efficient and effective besides creating an ambience for community support to the programmes of the institution. This was found helpful for curriculum development, technology induction, community project development, research identification or even mobilization of resources. Eventually the expertise of professionals from the community can be effectively used to make the institution truly professional.

The formulation of the 'Management Team' in another institution has the effect of pulling together senior members of faculties who had previously liaised individually with the Head. It has brought about rationalization of work, and made greater use of staff interests and specialism. It has helped to create a group identity among those

who are concerned with the management of the college and this is definitely a positive contribution to successful management.

These measures can be represented by the diagram below which indicates the position of the senior management team in the structure of the college.



Senior Management Team in the Organization Structure

The method of operation and the creative role of the Senior Management Team is evident from the number of creative projects generated such as involvement of alumni in various activities, resolving conflicts with the union etc. In yet another institution, the management structure was found to be quite cohesive and harmonious, genuinely promoting the interests of the institution.

7.3.3 Management Process

Some institutions have evolved mechanisms and strategies to coordinate academic and administrative functions. Since all programmes are time bound, it is essential to organize the different functions within a time frame in spite of its short-term or long-term implications. The long-term plan may be the institution's perspective plan for campus development or academic programmes and the short-term plan may relate to annual/ semester programmes. All these are scheduled in the frame of an academic calendar, so that they are time bound and targeted with assigned responsibilities, and achievements.

If the Head of the organization, teachers, students and administrative staff are driven by the mission of a ***passion for excellence***, it creates a very healthy professional environment which is conducive to bring out the best in every individual working for the institution.

In an experiment called "Management of Change", the C***hoice Based Credit System*** and S***emester System*** were introduced by a university and its affiliated colleges. Moreover, the university has brought out relevant documents analyzing the past performance of each affiliated college under the rubric "***Choice is yours***" as a reference document for the benefit of new entrants seeking admission.

The management process is the 'throughput' for achieving the output. The procedures have to be appropriate and transparent. For example, some institutions take great care of the recruitment of the right persons to the faculty or administration solely on the basis of merit/experience/expertise/specialization. All procedures are followed meticulously. Appropriate mechanisms operate transparently to select the right persons without compromising quality to accommodate vested interests.

Realizing the impediments that different levels of hierarchy often create in a rigid structure of governance and because of difficulties to fix and monitor responsibilities in it, some institutions have devised strategies for direct access even up to the Vice-Chancellor. Effective communication through e-mail, frequent review meetings etc have resulted in well informed faculty and non-teaching staff who are thus made agile and dynamic.

Another university has enhanced academic freedom while, at the same time, linking it with accountability, particularly in the execution of research projects. This is an example of the best practice of greater coordination that a supportive administration can provide for research development.

Incentives for productivity have been introduced by some institutions. Introduction of computer training for all administrators has remarkably improved the productivity and the confidence level of employees.

Keeping pace with modern development, University 'S' has computerized examination, library and administrative work. The university has arranged extensive training programmes in internet, office automation and record maintenance for its administrators, etc. As an outcome of this, the efficiency of the administration has significantly improved.

With the globalization of Indian economy, the need has arisen to change the educational system and its past philosophy, administrative-practices, bureaucratic approaches and teaching /research practices which are generally unable to cope with the speed of quality enhancement globalisation has entailed.

7.3.4 Planning and Managing resources

Managing resources - space, money, material and human resources - is the crux of organizational management – more so in educational institutions. Managing human, financial and material resources requires proper planning and implementation as well as evaluation. Since human resources are very central to the educational system considerable attention has to be focused on them. The manpower requirements of 'one group' of institutions is continually assessed and recruitment made in a scientific manner following prescribed procedures. The emphasis on quality, competence and commitment was evident in all the regulations governing recruitment by the Management. The ambience needed for keeping the morale of the faculty and staff high is secured by the betterment of service conditions, facilities, compensation packages and code of conduct.

A large college had problems about managing its available space, materials and equipment used for teaching and learning. It took the view that such resources should be made available to each teacher and student. Trying to implement these ideas led the institution to the establishment of a ***Central Resource Center***. All kinds of questions and practical difficulties were raised mainly due to the feeling of deprivation of personal possession and custody of resources held by individuals and groups earlier. Finally when the centre was established, and services were provided for developing teaching aids and computer aided packages centrally, faculty were convinced about the professional perspective of such a developmental initiative. It was a successful practice of sharing-resources. Classroom space was assigned to different departments according to a prepared schedule which led to an effectively co-odinated use of resources.

7.3.6 Financial Management in higher education institutions

Financial resources are scarce, more so for education and, therefore, better utilization of available limited resources should be ensured.

Many institutions adopt best practices for making meaningful budgets for planned development. Monitoring mechanisms and well defined time-bound internal and external auditing systems attempt to ensure responsible spending. Some universities review the expenditure and identify and avoid wasteful expenditure.

University 'C' follows a transparent budget process. The allocation of funds to each department for organaising seminars and special lectures facilitated effective performance in curricular and co-curricular activities. Some institutions have developed manuals of administrative and accounting procedures which are beneficial for quicker decision making. Many institutions have computerized the whole administrative and other student support systems so that operations have become simpler, faster and more transparent. Some institutions have even rationalized the fee for each programme. Fees have been revised gradually and systematically and it has ensured the financial health of the institution. Some programmes have been made self funded with increased fees to meet escalating costs. Some institutions have made residential accommodation, supply of water, electricity and food self-supportive by a sharing arrangement. This ensures efficient use of services and generation of funds to meet costs.

Adoption of streamlined purchase procedures in the case of expensive services and materials - by calling for tenders and quotations - is one of the best practices adopted by some good institutions. Some other institutions generate income from optimum utilization of space and specialized services. A centralized purchase system, centralized admission and time table processes, development of a net work of higher education institutions for sharing physical and human resources are also economic methods of management. Where research and teaching are not strong, such an approach of networking can facilitate increased productivity by using the scarce physical and human resources effectively.

7.3.7 Resource Mobilization

While the government is not fully committed to the progressive increase of public spending on universities and higher education, it is necessary to generate additional resources from other sources. Some institutions have been successful in generating 10-15% of their annual maintenance expenditure. Managements mobilize resources from the society through many strategies. Society as a whole has the responsibility to support education at all levels, including higher education. Successful mobilization

of resources depends on the creation of public awareness and on the degree of involvement of public and private sectors of the economy, the media, governmental and non-governmental organizations, students as well as institutions, families, and all the social actors involved in the processes and functions of higher education. Some best practices achieve these.

Resource mobilization particularly through the munificence of the alumni is a distinctive feature of many institutions. In one Deemed University, besides the revenue collected by way of tuition fees, endowments, contribution from companies and alumni, the institution augments its resources through its off campus academic programmes. Some institutions have opened campuses abroad or have tied up with other reputable institutions to offer their programmes. They mobilize funds by providing educational services which are in demand abroad. An institution mobilizes funds to make it self-supportive to a large extent, with a reasonable fee structure.

One of the 'best practices' is that of charging differential fees from students who belong to different economic backgrounds. A different fee structure for those subjects/ courses which have a high potential for employment is another best practice.

In order to avoid deprivation of higher education to the poor but deserving students, scholarships, freeships and loans are made available. Schemes such as 'Earn while you Learn' under which students work in laboratories, libraries, etc., to earn some money are also adopted by some institutions.

Needs of overseas students are being met by a few institutions which offer appropriate courses; they generate resources and also promote inter-cultural interaction besides meeting global needs.

Other sources of income include private donations and endowments, income from community participation and industry-institutional linkages.

7.3.8 PDRA cycle

The PDRA (Plan, Do, Review, Act) administrative procedure practised by some Managements offers 'leadership' through participative management. This facilitates some Managements to play the role of mentor, facilitator or mobilizer of resources. It fosters an environment of team-oriented culture which identifies problems and finds solutions to sustain improvement of the system of governance through co-operative endeavour.

In order to improve the functioning, University 'A' follows the principle of decentralization through delegation of power and it reviews management functions periodically. Adequate steps are taken to ensure discipline among employees by adherence to the code of conduct that governs them. These include the practice of maintaining annual confidential reports of the administrative staff and records of punitive measures taken against errant employees and of rewards given to others for excellent performance.

In one Deemed University, a special committee prepares the annual Academic and Administrative Audit report, reviews the work of departments and in particular, research and publication efforts. Corrective action is taken on the basis of the review. In another case, the institution is inspected, checked and visited by the officers of the Management frequently in order to assess performance, needs, quality control, optimum utilization of resources and institutional output. Follow up action is also taken meticulously to ensure institutional development.

7.3.9 Performance Appraisal

Many institutions use confidential reports for the purpose of promotion. A few institutions systematically get the self-appraisal done by faculty and staff and it is supplemented by appraisals made by peers and experts. Faculty performance is assessed by students in some institutions. In another institution, an external agency is involved in the appraisal of the staff.

Effective Teacher Performance Appraisal (TPA)

A few years ago College 'C' decided to introduce teacher evaluation by students. A small committee consisting of senior teachers drew up a Teacher Assessment Questionaire (TAQ). To ensure complete objectivity, the implementation and analysis of TAQ was assigned to an external agency. They drew up the schedule of operations based on a time table and students were asked to assess honestly. The analysis of the report was made available to teachers and to the Principal. Opportunity was given to teachers for improvement of their performance and the outcome of the feedback was shared with teachers with utmost confidentiality.

Some institutions constantly monitor the reports submitted by various departments and try to take steps, wherever necessary, to improve work efficiency. Special training is given to administrative staff in University 'X' for improving work efficiency. They are also permitted to register for degree programmes in the institution. There are various staff development programmes offered to enable them to function more effectively. There are rewards for excellence in administration and promotions are

given out of turn on the basis of efficiency shown in work: The ratio of faculty to supporting staff is 1:1. Equal proposition is often considered a mark of administrative wastage and inefficiency according to some reports of Peer Teams.

Feedback obtained from employees, parents and industry is found useful by some institutions which take up reforms/ modifications for continuous improvement.

Some institutions promote academic autonomy in order to enable teachers and researchers set priorities and take their own decisions so that the domination of administration over the academia may be minimized.

7.3.10 Staff Development

Employees need training in advanced skills related to their work and to understand and solve quality related problems. In University 'B', the regular 'Friday Talk Programme' facilitates interaction of faculty with experts which has resulted in the generation of ideas for innovations in curriculum. Exposure to such innovative ideas and training has made employees conversant with the goals and objectives of the institution and with the means to attain them. Training can be reinforced by creating opportunities for on-the job- applications of learning, involvement and empowerment. It is important that training and participation need to be tailored to create a work force which will be in tune with the administration.

In University 'A', developmental programmes are given due importance to enhance the communication skills and personality development of employees.

College 'M' makes use of Training Effectiveness Evaluation Modes (TEEM) with 212 parameters which they apply to skill development among teachers, students, administrative and technical staff and others. It forms the basis of institutional audit and serves as a measure of training effectiveness.

Some institutions provide every one internet facilities to access the latest information regarding instructional strategies used in advanced countries. Computer training is provided to all teaching and non-teaching staff in quite a few institutions.

7.3.11 Automation and Information Technology in governance

Computers are extensively used in all the activities of a progressive technological university. Several servers and diskless nodes are used to connect individual Pentium computers. Students and faculty have access to e-mail and internet. Most of the data on admission, course allocation, timetable, course evaluation, grades and practice school activities are computerized. Administrative activities such as accounting,

purchase, leave etc. are also computerized for swift execution of tasks and for instant availability, on the net, of the information needed by administrative officers. Most of the software needed for all this activity was developed by students and faculty. Some of the well managed institutions have a few people qualified in processes of administration and they operate more efficiently and effectively with technology enabled systems. They have actually transformed the management of the institution for the better.

7.3.12 Linkage

Some institutions have established academic tie-ups with national, international and industrial bodies for curriculum development, research, teaching-learning and publications. Resources are mobilized from such contacts which are useful for developmental activities in the respective areas besides meeting global challenges and thereby gaining recognition.

Some institutions are proactive in making efforts to establish close links between them and research institutions, rightly realizing that education and research together contribute to the development of knowledge.

Collaborative linkages have been established by many institutions with national/ international organizations mostly for purposes of research. University 'Y' has prepared a useful document on available university faculty resources for university-industry linkages to be shared with the stakeholders. This has substantially enhanced income through consultancy services.

Another university has taken initiative to promote inter-institutional programmes by adopting the multi modal approach for technology teaching through the Distance Education mode. Faculty members are encouraged to be involved in diverse inter-disciplinary research.

The linkages in general have made a definite impact on faculty and students in terms of exposure to diverse and creative ideas impacting professional growth, research and publication output and mobilization of resources.

7.3.13 Private sector participation

The increasing demand for higher education and the inability of state-funded universities and colleges to cope with the pressures for expansion of educational services effectively, have made the participation of the private sector necessary. While this would take care of the demand for higher education of those who can afford to pay

for it has also made it difficult for the poor to have access to it. In order to prevent commercialization of education, necessary control and monitoring mechanisms need to be set up to ensure provision of quality education at reasonable cost.

7.3.14 Welfare Measures

Adequate welfare measures are adopted by many institutions for staff and students to achieve work satisfaction and security. Loans are provided at nominal interest rates and some times interest-free. Grievance redressal cells and sexual harassment cells take care of many eve-teasing problems in the campus. 'Earn While you Learn' scheme is introduced for economically weak students in many institutions.

University 'H', has a Staff Co-operative Thrift and Credit Society and an Employee's Housing Society affiliated to the State Cooperative Housing Society. Loans of different types are advanced: home loans, vehicle loans, personal loans, marriage loans and education loans. Some institutions have a separate overseas student office to facilitate offering support services like welfare programmes, cultural activities, and certain programmes for language-study and other coaching courses. Some have special SC/ST Cells which take care of the needs of SC/ST students and employees of the institution.

7.3.15 Creating a Humane and User Friendly Ambience

"***Quality ambience creates quality students***". In one of the institutions, the Peer Team commended, "The atmosphere of mutual trust and co-operation among the teaching and non-teaching staff and the Management has facilitated the effective functioning of the institution". The 'open house' interaction among students and functionaries of a university helps to receive regular feedback which has promoted the culture of harmony and co-operation in the campus besides enabling the authorities to improve existing management practices.

7.4 Impact/Outcome

The "Best Practices" in organization and management adopted by the institutions selected for study have made a difference in their ethos and functions regarding the quality of the education imparted as well as the quality of all its constituencies which together have made the educational activities effective. For example, if it is found, as it was found indeed, that all the constituencies are aware of the mission and the goals of the institution and have internalized them, it follows that their creative role in institutional planning and development is sound, the management inputs which focus on students and their achievements have made those institutions 'stand out' in planning, reviewing and revising the plans and acting again to have a dynamic management process which makes continuous improvement.

Quality permeates through all the activities, both academic and administrative, whether it is selection of students, faculty or administrative staff; or developing the curriculum to meet regional and national needs; or creating the necessary environment for teaching- learning; and research; or providing support services for the main function of learning and even making placement and counselling activities contribute to student progression to employment. Management processes alone can make things happen in order to achieve the desired outcomes according to the goals and objectives of the institutions. The innovative practices are ' tested initiatives' to be adopted by other institutions.

7.5 Requirements for Adoption or Adaptation

The practices identified in this document can easily be adopted by institutions as such. Sometimes some changes in the Act/Statutes will facilitate the functioning of the top management. If the Act has provision for creating an Internal Quality Assurance Cell, or Academic Audit, it might be easier for institutions to operate the same. If colleges have academic and financial autonomy, they have more freedom to implement some of their ideas and innovative practices. Institutions should have the freedom to experiment and initiate the best practices like preparing a vision document or preparing a perspective plan or enforce a TQM strategy for all its activities. However, all the constituencies should be oriented to the various management strategies and the skills required for the management of financial, material and human resources.

7.6 Conclusion

The organization should promote an environment which can facilitate academic and administrative functions. The primary focus should be on the creation of an environment for learning which can in turn facilitate the overall development of students in the cognitive, physical and ethical dimensions. In brief, ' Quality ambience creates quality students'.

Section B: Case Illustrations

The case illustrations presented below exemplify healthy management practices such as decentralisation of authority for sharing decision making, effective inter-office communication, transparency in policy and administration, obtaining and sharing feedback, promotion of equity in decisions and decision-making and other salient principles of management. They are but a few samples of the best practices which any institution can generate, adopt or adapt.

Case 1: Benevolent Participating Management

1. Objective

To involve everyone in decision making and implementation and to acknowledge their contribution

2. Need Addressed and the Context

To create a conducive environment for harmonious administration

3. The Practice

The practice is that of streamlining functions with the help of the Committee System. Committees are formed with nominees of the Vice-Chancellor, with representation from teachers, non-teaching staff and students, chosen in consultation with Heads of sections and departments. A committee with functionaries as its members - Registrar, Directors of Boards of Studies and Student Council Executives - oversees matters of discipline related to teaching and student attendance; the second headed by the Dean of Faculty prepares the academic calendar; and the third under the direction of the Vice-Chancellor and the Controller of Examinations manages examinations.

4. Evidence of Success

Efficiency of administration has improved. Strikes are averted and members feel proud of their contribution. Strict adherence to the academic calendar such as completion of admission process as per the calendar is also an evidence of success.

5. Resources

Human resources with motivation and involvement

6. The Institution

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Address: Taleigao Plateau, Goa - 403206
Ph: 0832 - 2451576, 2451374 (O)
Fax: 0832 - 2451184
E-mail: vc@unigoa.ac.in
Web: www.goauniversity.org
Year of Accreditation: 2000-2001
Grade Awarded by NAAC: A**** (Four star)
Contact Person: Prof. P. S. Zacharias, Vice-Chancellor

Case 2: Transparent Admission Process

1. Objective

To follow a transparent process of admission of students to courses of study

2. Need Addressed

The need is felt to make admission procedures transparent to win the trust of the community; to streamline procedures more systematically and to increase access to higher education for socially and economically deprived sections of students.

3. Practice

The practice is meant to achieve transparency in the admission process by (a) abolishing the Management quota; (b) notifying admission in dailies; (c) screening of applications by a committee of responsible senior faculty; (d) and avoiding personal meetings to the extent possible by transparency, displaying lists of selected students on the notice board.

4. Evidence of Success

There is total transparency in the system. There is no pressure from any quarters or crowding or arguments during admission time. The community has expressed its satisfaction about the transparency.

5. Resources

No material resources are required. Cooperation and support of university bodies is necessary for the transparent process to operate. Mobilising public opinion in favour of this practice is also useful.

6. The Institution

Name: Karnatak University
Address: Darwad, Karnataka
Ph: 0836-2448600, 2778650
Fax: 0836-2747884 / 2741928
E-mail: vice-chancellor-kud@yahoo.co.in
Web: www. karnatakauni.com
Year of Accreditation: 2000-2001
Grade Awarded by NAAC: A***** (Five star)
Contact Person: Dr. M. Khajapeer, Vice-Chancellor

Case 3: Faculty / Staff Performance Appraisal

1. Objectives

To develop staff-competencies through performance appraisal

2. Need Addressed

The practice addresses the need to make pedagogy optimally effective and to streamline administrative functions to become more efficient.

3. The practice

Self-appraisals and student appraisals of the performance of faculty and non-teaching staff are made with the use of instruments developed for the purpose (questionnaires). The results obtained from a meticulous analysis and interpretation of feedback are quantified for histogramic display. Feedback is given to the assesees confidentially and follow-up strategies are devised accordingly.

4. Evidence of Success

Improvement in the performance of teachers, and awareness of institutional goals among members could be observed. Improvement of teamwork and enhancement of overall performance in every sphere of activity are also evidence of success.

5. Resources

Only Human Resources - Leadership

6. About the Institution

Name: Sri Dharmasthala Manjunatheswara College
Address: Ujire, Karnataka
Ph: 08256-236221, 236101(O)
Fax: 08256-236220
E-mail: shribala@rediffmail.com
Web: www.sdminstitutions.org
Year of Accreditation: 2003-2004
Grade Awarded by NAAC: A
Contact Person: The Principal

Case 4: Decentralization and Networking

1. Objective

To decentralize academic and administrative functions to achieve efficiency

2. Need Addressed

The older models of the top down approach in management cannot meet the demands of a fast changing national and international scenario. The system needs to be revamped to achieve optimum efficiency for development. Motivation in every sector is to be sustained so that goals (both individual and institutional) are achieved.

3. The Practice

The practice seeks to achieve decentralization of functions through the Committee System. Committees are formed with representation from teaching, non-teaching and student sections of the institution and each one of them is assigned an area of responsibility–welfare, grievance redressal, library, etc. They meet periodically, arrive at decisions and recommend to the Management the course of action to be taken.

4. Evidence of Success

Efficiency is achieved with ease at all levels. Planning from the grass root level has become effective. Participation in all functions of the institutions by all members has improved. Student and staff satisfaction has improved and the sense of belonging to the college is more evident.

5. Resources

Human resource and time to organize different meetings

6. The Institution

Name: Loreto College
Address: 7, Middleton Row, Calcutta - 700 071, West Bengal
Ph: 033-22296030, 22493063(O)
Fax: 033-22296030, 22493063
E-mail:loretcol@col2.vsnl.net.in
Year of Accreditation: 1999-2000
Grade Awarded by NAAC: A***** (Five star)
Contact Person: Rev. Sr. Tina Farias, Principal

Case 5: Augmentation of Student Support and Staff Welfare

1. Objectives

To increase welfare measures for students, non-teaching staff and faculty

2. Needs Addressed

There are many students who are socially backward and economically poor who need some assistance to have access to higher education. Similarly, faculty and non-teaching staff have many welfare needs to meet for family, education of children, medical assistance etc.

3. Practice

The practice envisages (a) mobilisation of funds and human resources to offer academic support such as book bank, remedial teaching and fee concessions; and (b) betterment of the lot of contract employees (faculty) and non-teaching staff with increased facilities for loans and other forms of financial assistance.

4. Evidence of Success

A general feeling of satisfaction and security prevails in the institution. Dedicated team work among staff could be observed.

5. Resources

Fund raising strategies

6. The Institution

Name: St. Francis College for Women
Address: Begumpet, Hyderabad-500 016, Andhra Pradesh
Ph: 040-23418308/23403200 (O)
Fax: 040-23418308
E-mail: alphonsa_89@yahoo.com
Web: www.stfranciscollege.ac.in
Year of Accreditation: 1999-2000
Grade Awarded by NAAC: A***** (Five star)
Contact Person: The Principal

Case 6: Grievance Redressal

1. Objective

To redress grievances of any member of the institution

2. Need Addressed

There used to be many complaints from students and staff which were allowed to lie unattended to. If the social image of the institution has to be protected and enhanced, grievances of students should be addressed appropriately.

3. Practice

The Grievance Redressal Committee has been established under the chairmanship of the Vice-Chancellor and some senior staff as its members. If any complaint or grievance is received in writing, or orally, by the Committee, the chairman convenes the meeting of the committee to resolve the problem. The case is heard by the committee from the persons concerned and suitable measures are evolved to redress the grievance and establish justice.

4. Evidence of Success

The number of complaints are reduced. Every member of the institution feels that grievances are well handled and justice rendered.

5. Resources

Formal structure to redress grievances

6. The Institution

Name: M E S College of Arts and Commerce
Address: Zuarinagar, Goa
Ph: 0832-2555772, 2556010(O)
Fax: 0832-2556010
E-mail: mescollege@rediffmail.com
Year of Accreditation: 1999-2000
Grade Awarded by NAAC: A**** (Four star)
Contact Person: The Principal

Case 7: Effective Human Resource Management

1. Objectives

To tone up administration to provide quality education in an atmosphere of discipline

2. Need Addressed

The need is one of overall revamping of management practices in order to decentralize administration; augment welfare; involve students in planning; and to improve teacher input through incentives.

3. Practice

The management practices are decentralised with active participation of students and teachers in planning. Good performance of teachers is encouraged with appropriate incentives. The welfare schemes have been strengthened.

4. Evidence of Success

Good academic atmosphere, good results in university exams and good attendance among staff and students are the evidence of success.

5. Resources

Cooperation of the Campus Community

6. The Institution

Name: Ponnaiyah Ramajayam College
Address: Thanjavur - 614 904, Tamil Nadu
Ph: 04362-236707(O), 231112 (R)
Fax: 04362-235767
E-mail: prgi@prcolleges.com
Web: www.prcolleges.com
Year of Accreditation: 2003-2004
Grade Awarded by NAAC: A
Contact Person: The Principal

Case 8: Vision and Mission

1. Objective

Man-making and Character-building

2. Need Addressed

Education of the right type and quality is essential to refine and humanize individuals and communities. When undergraduates are so moulded society's leadership needs can be met.

3. Practice

The practice mainly includes the process of controlling the mind through work and contemplation. Work has to be done without looking for its fruits and the restless mind generally engaged in such work would be controlled and this work, in turn, induces the pupil to contemplate easily. Every morning and evening students practise contemplation in the hostel shrines.

4. Evidence of Success

Hundreds of such students passing out of the institution are respected by the society. They have been serving the society in offices, colleges, schools, hospitals etc. and they are respected by the society because of their integrity of character and simple lifestyle.

5. Resources

In general, the college environment may be conducive to the teaching of such lessons in the classes. Students need a serene and calm ambience where they can cultivate these virtues. Of course, one class in a week may be arranged for them to elucidate the ideas theoretically in the classes but for practical demonstration they have to find out some secluded place. And the college, being residential, provides it.

6. The Institution

Name: Ramakrishna Mission Residential College
Address: Narendrapur - 700 103, Kolkata, West Bengal
Ph: 033-24772205, 24772201 (O), Fax: 033-24773597
E-mail: rkmcnpur@vsnl.com
Web: www.rkmcnnarendrapur.org
Year of Accreditation: 2003-04
Grade Awarded by NAAC: A
Contact Person: Swami Suparnananda, Principal

Case 9: Management by Teams of Faculty and Students

1. Objective

To promote participatory management

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2. Need Addressed

The need to bridge the teacher-student divide was felt to be immediate in order to involve students in direct planning and also in the process of review of functioning.

3. Practice

The objectives and action plans for the academic year are set by the departments themselves. Students are also involved in the formulation of goals set by departments. Mid-term and annual appraisals are made to ensure whether the objectives are attained.

Joint goal-setting ensures participation of both teachers and students. Clear goals and action plans generate concrete thinking and better communication between the two parties involved. Each individual knows clearly what is expected. It provides greater opportunities to make individual contribution and to accept more responsibility.

4. Evidence of Success

It is now found that departments and students generally set their goals higher than those of the previous year. It ensures that goals of each department are consistent with the objectives of the college. Each activity of the college thus becomes goal directed.

5. Resources

Support of the teachers, non-teaching staff and students

6. The Institution

Name: St. Agnes College
Address: P.B. No: 513, Bandore, Mangalore - 575 002, Karnataka
Ph: 0824-2218414 (O), 2216900 (R), Fax: 0824-2223594
E-mail: stagnes@vasnet.co.in
Web: www.stagnescollege.org
Year of Accreditation: 1998-1999
Grade Awarded by NAAC: A*****(Five star)
Contact Person: The Principal

Case 10: Total Quality Improvement and Management Enhancement Practices

1. Objectives

To enhance performance of students, output of teachers and involvement of the community

2. Need Addressed

St.Berchmans College addresses its needs in three different categories. It comprises the needs of the community, students and teachers. Propagation of quality education and implementation of modern educational practices help the youth to contribute to the holistic development of the community. Student requirements include the availability of quality education, personality development, skill upgradation and competency development. Development of professional competency is the main need of the teaching community.

3. Practice

The practice is one of internal institutionalisation of arrangements made to ensure quality academic performance, all-round student development and community service. Strategies and services are institutionalized in order to make them more formal, organized and systematic. Student Parliament, HRD Programme, Alumni Association, Benefactors Club, Science Aptitude Programme, Community Programme and Counselling Center as well as Sports Complex function continuously. The Staff Council and the Departments play a positive role in co-ordinating them.

4. Evidence of Success

Active support from the community for the development of the institution, especially interest and contribution of past students (alumni) has increased. Awards from Government, media and voluntary organizations including the identification of the college as one of the "Centres of Excellence" for the UGC support is also an evidence of success.

5. Resources

Committed faculty, adequate infrastructure facilities and support of the stakeholders including government, alumni and parents

6. The Institution

Name: St. Berchmans College
Address: Changanassery, Kottayam, Kerala - 686 101
Ph: 0481-2420025 (O), 2427011(R)
Fax: 0481-2401472
E-mail:sbc@sbcollege.org
Web: www.sbcollege.ac.in/ www.sbcollege.org
Year of Accreditation: 1999-2000
Grade Awarded by NAAC: A*****(Five star)
Contact Person: Rev. Fr. Tom Thomas K, Principal

Annexure I

Abbreviations

ACU	-	Association of Commonwealth Universities
ASPA	-	Association for Promoting Social Action
ATP	-	Affordable Training for Proficiency
AVRC	-	Audio-Visual Research Centre
CEC	-	Consortium for Educational Communication
CHEMS	-	Commonwealth Higher Education Management Service
CSA	-	Centre for Social Action
DTP	-	Desk Top Publishing
EMRC	-	Educational Media Research Centre
FAQ	-	Frequently Asked Question
FIST	-	Fund for Improvement of Science and Technology Infrastructure
GATS	-	General Agreement on Trade in Services
HEI	-	Higher Education Institution
ICHR	-	Indian Council of Historical Research
ICPR	-	Indian Council of Philosophical Research
ICT	-	Information and Communication Technology
INFLIBNET	-	Information and Library Network
INQAAHE	-	International Network for Quality Assurance Agencies in Higher Education
INSA	-	Indian National Science Academy
IPR	-	Intellectual Property Rights
IQAC	-	Internal Quality Assurance Cell
IT	-	Information Technology
LCD	-	Liquid Crystal Display
MoU	-	Memorandum of Understanding
NAAC	-	National Assessment and Accreditation Council
NCC	-	National Cadet Corps
NSS	-	National Social Service
OHP	-	Over-head Projector
QAA	-	Quality Assurance Agency
TRIPS	-	Trade Related Intellectual Property Rights
UGC	-	University Grants Commission
UICIC	-	University Industry Community Interaction Centre
UNESCO	-	United Nations Educational, Scientific and Cultural Organization
USA	-	United States of America
USIC	-	University Science Instrumentation Centre

Annexure II

Programme Schedule

26 July 2004 (Monday)

0930 – 1000 hrs	Registration
1000 – 1100 hrs	Inauguration (Opening Address: **Prof. V S Prasad**, Director, NAAC Inaugural Address: **Prof. P S Zacharias,** Vice-Chancellor, Goa University)
1100 – 1130 hrs	Tea
1130 – 1300 hrs	Theme presentation on 'Best Practices in Higher Education' in plenary
1300 – 1400 hrs	Lunch
1400 – 1700 hrs	Six parallel workshops on the six criteria

27 July 2004 (Tuesday)

0830 – 1030 hrs	Six parallel workshops continue
1030 – 1100 hrs	Tea
1100 – 1230 hrs	Reporting the outcome of the six parallel workshops and open forum in plenary
1230 – 1300 hrs	Closing session
1300 – 1400 hrs	Lunch

Annexure III

Organising Committee

At Goa University

Prof. P S Zacharias — **Chairman**
Vice-Chancellor
Goa University

Dr. F A Fernandes — **Local Co-ordinator**
Director-Academic Staff College
Goa University

Members

Prof. Jayant S Budkuley
Registrar
Goa University

Mr. Ashish Jacob
Assistant Registrar
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Goa University

Mr. Leo Macedo
Finance Officer Incharge
Goa University

Dr. P V Konnur
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Annexure IV

Resource Team

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Annexure V

Participants of the Conference

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