

1. INTRODUCTION

India exhibits a wide range of heterogeneity and complexity from one region to another within the country because of its geographic diversities, variation in physical environment, ethnic pluralities and socio-economic disparities as well as escalating demographic pressures. These factors also have their reflections in the functioning of the Higher Education Institutions. Indian Higher Education system has a mix of all kinds of institutions with respect to quality. Among these one can find institutions of international standards, above average, and not so good ones.

One of the major components of our education system is examination. The education process in any discipline of learning ends with examinations. The entire effort put in by the teachers on teaching and the student on learning is centred on getting good results in the examinations. Thus examinations have been overriding the process of education and are a matter of concern for stakeholders. Several committees and commissions were constituted from time to time to suggest reform in education in general and examinations in particular.

Several institutions have introduced innovative practices to improve the quality and efficiency in the various processes of their examination systems especially in the conduct, administration and evaluation. National Assessment and Accreditation Council in its endeavour to bring in quality in the higher education institution, wanted to propagate these innovative practices that are successfully undertaken by the different institutions to other institutions also.

The best practice adopted by one institution need not be a best practice for another institution. However, the idea can be taken up by other institutions, modified according to their need and assimilated into their system, for betterment. For this purpose, NAAC wanted to collect the institutional best practices and to customize it into a format for delivering it for larger awareness.

A questionnaire was prepared (the format of which is enclosed) and sent to all the accredited Universities/Institutions/Autonomous Colleges, to enable the institutions to submit their best practices, they have adopted in improving their examination process, in a structured format. About 75 institutions responded, however, the reviewing committee, to identify the best practices, recommended only 16 practices for publication.

The NAAC has already published the best practices in three areas namely Internal Quality Assurance Cell Activities, Library and Information Services and Community Engagement. The present volume deals with “the best practices in student evaluations” as the next in this series.

The ensuing paragraphs give a gist of the various practices discussed in this volume.

The University examinations in Tezpur University are totally internal, providing sufficient scope to test the skill and knowledge acquired by the students during the course of their study. Under this system if a student registered to a Master’s degree programme, discontinues, due to some reason, he/she is entitled to get a certificate/ diploma if he/she has earned the credits required for such certificate and diploma.

In order to provide uniformity in awarding internal marks to the students of all 210 affiliated colleges situated across the state of Andhra Pradesh and also to assure an unbiased valuation by the faculty members, the Jawaharlal Nehru Technological University, Hyderabad, has introduced on-line examination for the internal assessment. The University has also designed and implemented the electronic distribution of examination papers (EDEP), to eliminate the possibility of leakage of question papers and also to avoid mass copying in the colleges.

As an effort to improve the efficiency, reliability, transparency and accuracy in the examination system, Shivaji University, Kolhapur has embarked on the idea of integrated software solution for examination processing system. The revaluation facilities and provision for comparing these answer scripts with the model answer and the scheme of valuation prepared by the paper-setters, enable the University not only to redress the grievance of students but also to ensure more careful valuation of the scripts by the teachers.

On-demand examination practice of Bharathidasan University gives an immediate opportunity to students, who have failed/have been absent in one paper in the final semester examinations, to write that one examination on their demand, so that they would not lose a precious year in their academic career. The University has also introduced the ‘Tatkal System’ to issue certificates to students within a day or a few hours on the payment of an extra fee.

With the systematic programming of all examination related work and streamlining the work of examination division, Gurunanak Dev University, Amritsar, has developed

a time schedule for the examination processes enabling the University to declare the results of the undergraduate programmes before 30th June and postgraduate programmes by first week of July. This has helped the University to achieve 180 teaching days.

In Gulbarga University the coding of the answer scripts is carried out by a group of employees at the college (examination centre) and thereafter the reshuffled coded answer scripts are packed into bundles at the University (examination division) by a different set of employees. The coding and packaging done at two different places by two different groups of people ensures the secrecy (anonymity) of the answer scripts.

At BITS Pilani, the evaluation is an integral part of the teaching-learning process. The evaluation is through tests, quizzes, home assignments, semester work and project reports. The use of open book examination for each course carrying at least 10 percent of the total evaluation implemented by the Institute has been widely accepted by the students. This comprehensive internal evaluation is the total responsibility of the teachers teaching the courses.

The colleges affiliated to North Bengal Universities are scattered over a remote, hilly and inaccessible geographic area situated in the Himalayan regions and eastern plain regions of the state and also in the state of Sikkim. For the convenience of management of the pre- and post-examination processes, the University has segregated the affiliated colleges under its jurisdiction into Nine Zonal Nodal Centres. The Nodal Centres act as the extended arm of the University and carry out all the examination related work with the effective involvement of all the stake holders of the University examination system ensuring confidentiality and transparency of the examination as far as possible and as required.

The evaluation system adopted by Sri Sathya Sai Institute of Higher Learning has two components, Continuous Internal Evaluation (CIE) and the End Semester Examination (ESE). The ratio of weightage is 30% CIE and 70% ESE for undergraduate programmes and 50% for both CIE and ESE for postgraduate programmes. The answer scripts are given back to the students after evaluation for their information which provides transparency and accountability to the evaluation process.

The Banasthali Vidyapith has a unique mechanism of 'Grievance Redressal' through which the students get an opportunity to submit their grievances related to the question papers, in a prescribed proforma within two hours of the completion of the examination. The careful monitoring and analysis of grievances filed by the students and the comments received from the teachers and the Head of the Department of the subject concerned give important feedback on selection of examiner, quality of teaching, the scope and extent of the curriculum and quality of the questions asked.

The simultaneous conduct of examination and valuation of the answer scripts practiced in Sri Sarada College of Women (Autonomous), Salem, has helped the institution to complete the evaluation within twelve days for a normal examination schedule of ten days. This speedy evaluation of papers and publication of results helps the students in their further progression to higher studies and also helps those students who have arrears, to spend sufficient time to prepare for their back papers along with the regular papers.

A.V.C. College (Autonomous), Mannampandal Mayiladuturai, Tamil Nadu is conducting immediate supplementary examinations, twenty days after the publication of the result of odd/even semester examinations, to enable those students who fail in the semester examinations to reappear for the same immediately before they forget the subjects.

To enhance the knowledge and skills of their students, the Fatima College (Autonomous) Madurai, Tamil Nadu has included in the courses of study, skill-oriented components, like evaluation during group discussion, videography of the presentation of the program, internship, investigative projects, applied aspects of the theory, fabricating and assembling of new equipments, industrial training and seminars, for continuous internal assessment. Besides, English Attainment Test (EAT) and computer courses are made an integral part of the curriculum.

Though Indian higher education system has some broad framework, it is left to the discretion of the universities/autonomous institutions to design their examination systems. Everybody agrees that a thorough revamping of the examination system is essential. However, the objective of the present task is not to suggest a new model of examination system or to prescribe any remedy to the drawbacks of the present system. Instead, it is an attempt to bring into light the innovative practices adopted by the institutions, to strengthen the various processes of their existing examination system.

2. THE PRACTICES

2.1. INTERNAL EVALUATION SYSTEM TO MAKE EXAMINATIONS AN INTEGRAL PART OF TEACHING-LEARNING PROCESS

The Context

Some of the major problems relating to our examination system are:

- Examinations have come to dominate the educational process;
- Passing examination has become more important than acquiring any education;
- External examinations encourage selective study because of stereotyped questions;
- The marks obtained in examinations are not a reliable and valid measure of a student's performance;
- Escalation of use of unfair means in the examination halls leading to complex administrative problems.

It is under these contexts that Tezpur University has adopted the following practices to make the prevailing examination system free from these shortcomings.

The Objectives

To allow teachers of various courses to evaluate the performance of their students in accordance with the objectives they had set before themselves;

- To abolish set syllabi and external examinations based on them;
- To replace them by a system of internal and continuous evaluation by teachers;
- To make the examination an internal and integral part of the teaching process;
- To take into account a number of essential abilities such as drive and capacity for hard work, leadership and team-work, motivation, quality of imagination, intuition and speculation, skilled use of hands, etc.
- To de-link the award of degrees and diplomas, from the performance of a student in a number of courses;
- To allow movement of students, if necessary, from one institution to another and from one type of study to another;

The Practice

- To assess the performance of students over a well-distributed interval of time within the semester;
- To award grades instead of marks to the students at the examinations and assessments;

The performance of a student who has registered on any academic programme is evaluated internally on a continuous basis by the concerned course instructor. The distribution of weightages to various forms of assessment including the semester-end examinations is decided by the concerned course instructors and it is announced in the class within the first fortnight of the semester.

The grades from A+ to F to be awarded in the relative grading system, is to be decided by the course instructor(s).

Grade	Grade Points	Description of performance
A+	10	Outstanding
A	09	Excellent
B+	08	Very Good
B	07	Good
C+	06	Average
C	05	Below Average
D	04	Marginal
E	02	Poor
F	00	Very Poor
I	—	Incomplete
AP	—	Audit Pass
AF	—	Audit Fail
W	—	Withdrawn
X	—	Continued Project

- A student also may be awarded the 'F' grade in any course(s) if she/he fails to attend the minimum requisite percentage of classes as set by the course instructor(s).
- A student who gets 'E' or an 'F' grade does not earn any credit for the course. In such cases the student is required to repeat the core course(s).
- 'I' grade is awarded to a student if s/he fails to fulfil all the requirements for a course(s) under extraordinary circumstances. An 'I' grade is required to be converted to a proper grade within the first month of the next semester.
- 'X' grade is awarded to a student when s/he fails to complete the project work within the semester. In such a case the student is to register for the course in the next semester also.
- If a student is not satisfied with the grade(s) awarded by the course instructor, displayed in the notice board, s/he can avail an opportunity to appeal in writing for review to the Head of the concerned department within ten days of the commencement of the following semester.

Procedures of Evaluation and Guidelines for Faculty

- For evaluating a student's performance the instructor of a course will apportion marks to the mid-term test, semester-end examination and at least one more test of the following kinds: written test, home assignments, periodical quizzes, laboratory work, term paper, seminar or any other assignment that the instructor considers necessary for assessing the student's performance. The distribution of weightage, to the various components of assessment will be decided by the course instructor and will be announced in the class within the first fortnight of the semester. The record of such distribution for each course will be maintained by the Head of the concerned department.
- The instructor will decide the ranges of marks for awarding grades on certain bases, keeping in mind the spirit behind the concept of relative grading. In doing so, the instructor may consider factors such as toughness of the questions set, relative standing of the current batch of students compared to the earlier batches, the student's receptivity, his/her capacity for understanding, and his/her participation in the class.
- The instructor will display the grades on the departmental notice board at least one day (24 hours) before submitting the same to the respective Head of the department.
- If a student appeals for reviewing the grade(s) awarded by the course instructor, the review committee set up for the purpose in the beginning of the semester

together with the course instructor and the student will look into the matter and the grade(s) may be revised if justified.

- The Head of the concerned department will convene a meeting of the faculty within 4 days (96 hours) of the last examination in the department to endorse the results. The results thus endorsed will be forwarded to the academic section for necessary action.
- Regarding the attendance of the students in the class, the course instructor will announce the norms to be followed by him or her with regard to-
 - i. percentage of attendance below which a student will be awarded an 'F' grade.
 - ii. marks to be awarded if so desired by the instructor, on attendance;
 - iii. any other impact, the instructor would like the attendance to have, on the grade obtained by the student.
- An 'I' grade is awarded to a student if s/he fails to fulfil all the requirements for a course(s) under extraordinary circumstances such as the death of any member of the family, accident leading to hospitalization, suffering from contagious diseases, natural or social calamities affecting the student and such other situations which the instructor deems fit to be considered. This 'I' grade is required to be converted to a proper grade within the first month of the next semester through a fresh examination, submission of project works, assignments, etc.

Advantages and Disadvantages

The evaluation of the students has become internal as well as an integral part of the teaching-learning process. The assessment of the students has taken into account a number of essential abilities such as drive and capacity for hard work, leadership and team-work, motivation, quality of imagination, institution and speculation, skilled use of hands, etc.

Generally a student registered to a Master's degree programme needs to earn a certain number of credits to qualify himself/herself for the degree. But due to some reasons if s/he desires to discontinue his/her studies then s/he is entitled to get a certificate/diploma provided s/he has earned the credits required to qualify himself/herself for such certificate/diploma. The other aspect of this provision may be that the student may be asked to quit the programme with a certificate or a diploma as the case may be, due to his/her unsatisfactory performance during the period of his/her studies. This sometimes has benefited the student and saved him/her from the wastage of time s/he would have required to spend for getting the degree.

**Obstacles
faced if any
and strategies
adopted to
overcome them**

Obstacles

- Continuous comprehensive evaluation with credit based semester system keeps the students, teachers and all other concerned persons busy throughout the year, leaving little time for extra-curricular activities for the students. This, sometimes, may deprives a student of the extra-curricular activities such as games and sports, cultural or literary activities.
- Complete internal assessment system has an inherent tendency for its dilution.
- Newly appointed teachers are not familiar with the system.

Strategies for Remedies

- Courses of studies are in the process of modification and possibilities for reduction of course load are looked into, in order to give some time to the students for their extra-curricular activities. Students are also encouraged and facilitated to participate in the games and sports and cultural events held from time to time at state, national as well as international levels. Students are also facilitated to go for excursion and such other outdoor academic activities.
- Preparations are afoot to introduce an element of external examination along with internal assessment to prevent possible dilution of the system.
- Arrangements for giving training to the newly appointed teachers/administrators have been made in the concerned department/section to make them familiar with the system.

**Impact of the
Practice**

- Continuous assessment being an important component of semester system, it encourages the students to work systematically throughout the course.
- There is increased self reliance on the part of the students in respect of schedule, evaluation and performance improvement.
- Abilities that are not tested otherwise could be tested by this system.
- Students have the opportunity to discuss their answers through all accepted tools of internal evaluation. This adds to reliability and also transparency of the system.
- There is increased rapport and relationship between the teachers and the taught.
- Holding of examinations is much simplified and regularized and results could be declared as per the predetermined date specified in the academic calendar.

**Resources
Required**

- The percentage of students qualifying in the examinations is very high and consequently wastage of manpower is negligible.
- The system can also be credited for its efficiency in producing quality human resources who are absorbed by the recruiters in India and abroad, the number of which is increasing gradually.
- A body of dedicated teachers who feel the need to change the traditional system and put into practice a new system which is more meaningful and purposeful.
- A group of qualified staff which includes a system analyst who can play a supportive role in implementing the system.
- Well structured course syllabi specifying the following:
 - (a) content areas of the subject matter to be taught fully and clearly;
 - (b) activities of students;
 - (c) link with other subjects;
 - (d) depth and breadth of the treatment;
 - (e) students' abilities to be developed;
 - (g) teachers' method of teaching;
 - (h) class room organization;
 - (i) lesson planning;
 - (j) frequency of tests and type of tests, etc.
- An academic calendar clearly specifying the date/time of various academic events to take place during the academic session should be notified prior to the commencement of the academic session.
- Access to internet facilities to all the students should be assured.
- A programme committee should be constituted to monitor every programme of the University.

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2.2. ON-LINE EXAMINATIONS FOR INTERNAL EVALUATIONS

The Context

There is no uniformity in awarding internal marks across the affiliated colleges. In some of the affiliated engineering colleges, the coverage of syllabus is not uniform for different quiz examinations. Hence some colleges, particularly the colleges that lack infrastructure and competent faculty members, to overcome the students' anger, award internal marks very liberally. This fact is evident from the huge variations in the internal and external marks in all subjects of students. As a leading technological University in the country, Jawaharlal Nehru Technological University, Hyderabad, has introduced several innovations in the examination division of the University. As a continuation of this tradition, the on-line quiz examinations for internal evaluation have been introduced in the B.Tech courses in all affiliated engineering colleges.

The Objectives

To bring uniformity in evaluating the internal quiz marks of the subjects offered in all the Engineering colleges affiliated to the University.

The Practice

The objective-type and unit-wise question bank, in each subject are invited from the identified subject experts. Another subject expert for its correctness verifies the question bank. Each question, its four alternatives and the answer alternatives are converted into latex format and quiz-examination is divided into groups and each group is further subdivided into difficulty levels (simple, moderate and difficult). The quiz-examination question papers are randomly generated from the question bank. No two students get the same question paper. (Even if a question is commonly present in two different papers, its sequence of four alternatives will be different). Although the students get different quiz examination papers, the difficulty level of all question papers is approximately the same. The proportion of simple, moderate and difficult level questions in each paper is predetermined before the generation of question papers. A large number of question papers (ex: 120) are generated at the University-end, compressed and encrypted and sent to the colleges. At the college-end when the student logs in to write the examination, one of these 120 papers will be randomly assigned to the students. If the number of students writing the examination in the same subjects are less than or equal to 120, every student will get a distinct paper. The answers keyed-in by the students are saved in the high-end college server at regular intervals. In the case of break-down/failure of any student's computer, the student's saved answer gets visible at the other computer where the student continues his/her examination.

Advantages and Disadvantages	<p><i>Advantages</i></p> <ol style="list-style-type: none"> Un-biased valuation by the faculty members. Uniform representation of questions from all the topics of the syllabus. No human intervention in setting the question papers and assessing the answer scripts. The student gets his/her marks and the key for the wrong answers instantly. This system facilitates the automatic integration of internal marks with the marks memo issued to the students after each semester. <p><i>Disadvantages:</i></p> <p>The faculty in charge has no role in evaluating the students' marks for objective type examinations.</p>
Obstacles faced if any and strategies adopted to overcome them	<p>As the system is new and unique the system administrators at the college-end are provided training with regard to installation of on-line examination software, trouble shooting and maintenance of database.</p> <p>As the examinations are time-critical in nature, to meet the on-line examination software requirements from time to time, to handle the queries of college-side system administrators and trouble-shooting instantly, an exclusive software development centre with five programmers has been set up at the examination branch of the University. The new on-line examination software has been designed and developed by this software development centre only.</p>
Impact of the Practice	<ol style="list-style-type: none"> It brings uniformity in evaluating internal marks for the subjects offered in all the affiliated engineering colleges of the University. Inculcates discipline in the subject-teachers to cover the syllabus in the specified sequence and for a uniform syllabus-coverage. The examination system eliminates paper stationery in conducting examinations and the correspondence between University and colleges. This system helps in improved computer laboratory infrastructure with regular maintenance.

**Resources
Required**

- a) One high-end server with a minimum of 1GB RAM
- b) A local area network (LAN) with a minimum of 60 desktop computers (clients).
- c) One UPS system with a minimum of 1 hour back up.
- d) A trained system administrator.

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2.3. INTEGRATED SOFTWARE SOLUTION FOR EXAMINATION PROCESSING SYSTEM

The Context

The examination system should be fair, efficient, reliable and transparent. An important measure of the success of the examination system is its credibility. The conduct of examinations and declaration of results is one of the most important activities of the University. The smooth conduct of over 250 examinations per session of about two lakhs students is one of the major responsibilities of the University. The University has to declare the results of almost all examinations within 30 days and latest by 45 days. The current examination system is introduced to reduce the changes after the declaration of examination and to improve the efficiency, reliability and transparency in the conduct of the examinations.

The Objective

- To conduct all examinations as per the pre-published calendar of examinations.
- To curb malpractices and unfair means in the examinations.
- To maintain the confidentiality of the examination system.
- To increase reliability of the examination system.
- To increase the transparency in the examination system.
- To evaluate the answer books through Central Assessment Program in the minimum time period.
- To declare the result (as early as possible) in the shortest possible time.
- To undertake verification, supply of photo copies of the assessed answer books to the students and revaluation of the assessed answer books.
- To create confidence and trust amongst the students about the assessment system.

The Practice

Computerization of Examinations

The Shivaji University embarked on the idea of having an integrated software solution for examination result processing in the year 1999 and development started in the year 2000. CIPL has successfully designed, developed, implemented and maintained a customized application software for “Examination Processing System” (EPS) for Shivaji University, Kolhapur. This software is being used for the last five years for processing the results of the 250 examinations conducted by the University and for printing

admit cards, mark sheets, marks ledgers and degree certificates of students with photo.

Pre-Examination Activities

The examination forms are scrutinized class wise, checked for subjects, subject groups, name, code number etc. and then sent to the computer centre for further processing.

The status of the examinations is defined in four digits and one alphabet. The alphabet denotes the status of the student either fresh (F) or repeater (R). For example the student who fails in two subjects in BA part-I examination will have result ATKT (Allowed To Keep Term) and if he/she has not cleared these subjects in the mid term examination and is appearing for the two subjects of BA part-I and all the subjects of BA part-II s/he will have examination status 0012F. If status of the student is 0012R, then the student had few subjects to be cleared in BA part-I and also had appeared earlier for part-II and had failed.

The computer centre provides the checklists of the examination forms from which data of the candidate is entered with PRN, name, college name, subject status, examination status etc. These lists are verified by the concerned section with the examination forms submitted by the students. The examination Hall Tickets contain all the data of the candidates including computer scanned photograph. The same photograph is printed on the degree certificate.

Preparation of the Summary

After finalizing the name lists, the summary of the examination is prepared by the centre and is given to the concerned section. The summary gives the strength of the students for each subject which enables the strong room to conduct the correct distribution of question papers and the godown section with the proper distribution of the answer books.

Call for Examiners/Moderators

The lists of the examiners, moderators, and paper setters are provided to the concerned centre by the examination section. The examiners and moderators are invited as per the total number of answer books to be assessed in a particular subject.

Coding of the Answer Books

The answer books from the examination centres are accepted at the concerned CAP centers on the fixed dates. The answer books are tallied with junior supervisor's

reports. These answer books are then grouped into bundles of 20. The bundles of 20 answer books are mixed thoroughly before taking them for coding purpose. Then the code numbers are placed on the answer books and the portion revealing the identity of the students are torn out. These coded slips are kept in the custody of a senior officer till the assessment work is completed. After completion of the assessment and moderation, these code slips are directly sent to the computer centre for decoding and printed marks sheets are sent to the concerned examination section.

Preparation of Examiner's/Moderator's Marks Sheet

The marks from the answer book are directly entered on the computer or the sheets of marks are sent for direct scanning purpose. Examiner verifies the marks entered with the marks on answer book and signs if found correct.

The computer printed mark lists are sent to the concerned examination section. Concerned examination section verifies the marks with the checklist given by the computer centre and shows the correction if any. These errors are corrected by the computer centre and the second checklist is given to the section to ensure that all the errors are rectified.

Post Examination Activities and Declaration of the Result

The marks sheets received from the examiners/moderators and forwarded by central assessment progress section/centre are accepted by the examination section and the original marks entered on the computer sheet either through data entry or by scanning by computer centre. The reports of the absentee candidates are entered by the computer center and are verified by the concerned examination section. These reports are entered course- and subject-wise.

The checklists of the entered or scanned marks are given to the section by the computer centre and are verified by the section with original mark sheets. Only after due validation of the marks sheets received from the CAP centre and checklists received from the centre, is further result processing done by the centre for the preparation of ledger and statement of marks. The software used in the existing computer program is in ORACLE. The result copy received from the centre is verified with the ledger by the concerned examination section and then results of the examinations are declared. The result processing is done at the computer centre.

Decoding of the Slips at Computer Center

The code slips are sent to the computer centre for decoding (computer section provides code–decode checklists to the section). Sections verify these code-decode entries and show correction, if any, which are corrected by the computer centre and the checklist is given to the concerned section to ensure that the changes are shown correctly. After decoding, marks with code and code–decode lists are verified by the concerned examination section before the declaration of results.

The ledger copy of the results declared is sent to the concerned college along with the information on the last dates of application for the verification, and for obtaining photo copy of the assessed answer book. These dates are 15 days from the date of declaration of the results.

Variations after Declaration of Result

The entries of the variation in the marks after verification/revaluation are taken on the hard copies and on computers with remarks and signature of the officer heading that section after due approval of higher officers.

Advantages and Disadvantages

- The Application Software has a number of utilities that cater to the needs of the Examination Division. It generates all the regular as well as other statistical reports, which are required by various Government and Non-Government agencies.
- This software integrated with ICR Technology improves the reliability of the examination result processing system. Besides, utmost data-security has also been provided.

Obstacles faced if any and strategies adopted to overcome them

Nil

Impact of the Practice

The efforts taken through the new steps have improved the efficiency, reliability, transparency and accuracy in the examination system of this University. The uniformity in the assessment has improved to a considerable extent. The number of cases of mal-practices has been reduced. The cases of errors have also been considerably reduced.

**Resources
Required**

For the data entry, computer systems and data entry operators are required. Computer systems are purchased by the University and data entry operators are hired on entry basis for the required period.

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2.4. ELECTRONIC DISTRIBUTION OF EXAMINATION PAPERS (EDEP)

The Context

The University has a total of 210 affiliated engineering colleges, in addition to colleges offering other courses, which are spread all over the State of Andhra Pradesh. There are twenty-one different courses of B.Tech offered in these colleges. The examination division of the University has to prepare question papers and distribute them to all the colleges. As such there is a high possibility of leakage while printing and distributing of the papers.

To eliminate the possibility of leakage of question papers and also to avoid the mass copying in the colleges, the concept of question bank with random generation of papers, and electronic distribution papers of examination (EDEP) system has been designed and is being implemented from December 2002.

The Objectives

- a) To eliminate the possibility of leakage at the various stages of preparation of papers, i.e., while typing, printing and distributing.
- b) To prepare a question bank for each subject, and these are to be prepared by subject experts and checked and verified by other experts, to enable random generation and as far as possible, error-free examination papers.

The Practice

For each subject, four sets of question papers are prepared. These are encrypted using a specially designed encryption tool and then they are placed on the examination portal of the University. The encrypted version of the question papers are also sent to all the colleges in CDs since some of them do not have internet facility. These question papers can be decrypted by entering three levels of passwords, in addition to a college password. First is the University (public) key, which is common for all colleges, second is the college (or private) key which is known only to concerned college principal and his/her staff.

The third password is given on the day of the examination about one hour before the time of examination. The colleges can then decrypt and print the papers for circulating to the candidates. This system is being successfully implemented for the last two and half years.

The software for automatic generation of question papers is another step towards automation. For each subject a question bank is prepared by inviting subject experts

to write about 200 questions, which should be divided into eight units based on the topics.

The question banks are prepared by experienced faculty in the respective subjects. The faculty members' names are selected based on the suggestion by the respective Heads of department. Wherever the experts in the concerned field are not available within the University, the experienced staff from the affiliated colleges or other universities are given the task of preparing question banks.

These question banks are moderated by other faculty members, who check the questions for correctness and who make any changes if required. They also grade the questions in three categories according to the level of the difficulty. This ensures that the four sets generated are of similar difficulty levels. These changes are incorporated into the question banks.

The questions are then converted to latex format for random generation. These question banks are then ready for use to generate papers as and when required.

This system was used for the first time in April/May 2005. This ensures that the paper will be kept confidential and also minimizes human intervention after the question banks are finalized.

The other advantage is that question banks can be used to generate question papers for the same subject offered by different branches in different semesters.

The question banks can be modified and supplemented as and when required.

Advantages and Disadvantages

Advantages

- i) The possibility of leakage from the paper setter will be eliminated;
- ii) The efficiency of setting questions from one unit alone will be normally high and the expert can work fast;
- iii) Students will not show any interest regarding any rumours of leakage of papers, as s/he is not sure of the question paper that s/he has to answer;
- iv) Since seating arrangement is similar to EAMCET examination and four different question papers are distributed, mass copying will be eliminated;

- v) Printing of question papers at Security Press is eliminated and thus the possible leakage of papers from the press is avoided;
- vi) The possibility of opening of wrong question papers is eliminated and thus the examination schedule will not be affected. Even if there is a problem in any of the examination center/centers, such centers will be isolated and separate examination can be conducted.

Disadvantages

The only disadvantage is that with changes in syllabus, these changes have to be identified carefully and the Banks have to be changed meticulously.

Obstacles faced if any, and strategies adopted to overcome them

The main hurdle has been in the identification of subject experts for moderation and for preparation of question bank in the new and emerging fields like Bio-Technology and Aeronautical Engineering. To solve this problem, experts from various other institutions outside the state, as well as from the affiliated colleges are being involved.

Impact of the Practice

The EDEP has helped to solve the problem of leakage and transporting the papers is simplified as only the CD containing the encrypted papers is given to the colleges.

Resources Required

The system requires

- A well-equipped computer laboratory facility with networking.
- Trained data entry operators to convert the questions to latex format.
- Continuous high speed internet connectivity to upload encrypted papers and passwords on the day of the examinations.
- Sufficient space for storage and moderation of question banks.

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2.5. INSTANT EXAMINATION

The Context

Students who had passed all the courses/papers, sometimes by circumstances beyond their control, i.e., due to sickness or some untoward domestic incidents, could not do well in their final semester and may fail in just one course/paper, as a result of which one full precious year would go waste in their career. These students, given an instant opportunity of writing that just one paper in which they failed/absented could be enabled to catch up with their contemporaries.

The Objectives

The instant examination system was introduced to give an immediate opportunity to those students who have failed/absented in one paper in the final semester examinations, so that loss of one year could be saved.

The Practice

Candidates who have failed/absented in just one paper only in the final semester examinations may sit for the instant examinations. The candidates applying for the instant examinations should have passed all previous semesters and should not have any arrears. The instant examinations (both conduct of examinations and declaration of results) would be completed within two weeks after declaration of results of regular final semester examinations. The students need to pay an additional examination fee of Rs. 900/- in view of the extra cost incurred by the University and the gain of one year (opportunity cost) for the students.

Advantages and Disadvantages

Earlier, if a student failed/absented even in one paper, he had to wait for one full year/semester, virtually losing one full year of precious career. Now that is saved.

The only disadvantage is the additional/recurring strain on the examination machinery.

Obstacles faced if any and strategies adopted to overcome them

Some of the teachers/students initially felt that the extra examination fee is on the high side. When the details of cost for the University (and gain for the students) were explained, they were convinced.

Impact of the Practice

Around 80 to 90 percent of the students who take to instant examination are able to make it and some of them pass creditably also (because the students tend to concentrate on just one paper and put in their maximum effort). Such students who pass instant examinations do join their PG programmes (without entailing a loss of one year). The practice of instant examination has been well received.

Resources Required

The conduct of instant examination involves additional strain on examination machinery. But the cost of the whole exercise is borne by the student.

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2.6. TIME-SCHEDULED STUDENT FRIENDLY TRANSPARENT EXAMINATION PROCESS

The Context

The old conventional system of examination had become outdated. The pattern of question paper “attempt any five essay type long answer questions” was found wanting in many respects. The number of courses and candidates has also increased many fold. Consequently, the preparation of results manually as also the manual preparation of DMCs/Certificates/Degrees was found to be too laborious, time consuming and rather impossible. There were also chances of mistakes and manipulations in the manual preparation of results. In this new era, the system of examination must be to the satisfaction of all the stake holders. The process of evaluation should be directed to test the vertical and horizontal dimensions of the knowledge of a student. Use of modern technology in the tabulation and declaration of results has simplified and shortened the time span.

The Objectives

The main objective of practice is to make the examination system effective, scientific and standardized at national level so that the candidates can compete at UGC-NET and UPSC level examinations. It should be designated to test both the creative and analytical capability of a student’s understanding. The question paper should cover the whole syllabus. The examination system must be transparent and must meet the requirements of all the stake holders.

The Practice

- (i) At the first step, analysis of the syllabus requires to be done from where reforms start flowing. Accordingly, separate Boards of Studies for undergraduate and postgraduate levels have been formed. The syllabi of all the courses have been unitized and the course content as well as the pattern of question paper has been based on UGC-NET and UPSC examinations/competitions. All syllabi and eligibility conditions are available on the website and can be downloaded free of cost.
- (ii) The format of the question paper has been changed from the standard five out of ten essay type questions. The question paper is now divided into three parts: Part-I consists of 10 compulsory questions of total weightage 20%; questions are based on basic concepts and definitions and each question is to be answered in about half a page. Part-II consists of short answer focused questions. Candidates are required to attempt 8 out of 12 questions. (The number and choice of questions can vary in this part to 6 out of 9 or 4 out of 6, etc). The total weightage

of this part is 48%, 6 marks to each question for 8 out of 12 and can vary according to the number of questions to be attempted. The candidates are supposed to answer each question in about two pages. Part III consists of 4 essay-type long-answer questions. Candidates are required to attempt 2 out of 4 questions. This part has a weightage of 32 marks (16 each). All the candidates are required to answer each question in about five pages.

- (iii) No supplementary answer books are issued to the candidates and the total paper is to be attempted in a 32 page answer book. The practice of unfair means in the examination has almost been eliminated with the active support of all concerned. Special standing UMC committee is formed to hear the cases of unfair means.
- (iv) The evaluation of all the answer-books is done centrally through table evaluation. Each working day is divided into two sessions from 9:00 am to 01:00 pm and from 01:30 pm to 05:30 pm. The examiners are issued 20 answer-books in each session and the monitoring is done to ensure fair and careful evaluation. Head examiners are also appointed who are supposed to check 10% of the marked answer books evaluated by the sub-examiners.
- (v) The work of evaluation of any particular paper starts within four days of the conduct of examination.
- (vi) Total work of the examination branch has been computerized. Award lists are handed over to the computer section directly and the examination branch receives the award lists along with the print out of the results only for checking and scrutiny purpose.
- (vii) The computer centre is located in the administrative block adjoining the examination wing itself and is headed by a Programmer. All the software, etc., has been developed by the computer centre.
- (viii) Gazette is also prepared on the computer itself. All results are made available immediately after result declaration on the University website and is available for downloading free of cost.
- (ix) All the results of undergraduate classes are declared before 30th June and all other classes by the 1st week of July.
- (x) The photographs of the candidates are also printed on all the Detailed Marks Cards and also on the Degrees of the students.
- (xi) A hologram of the University has also been prepared and is being pasted on all the Degrees.

(xii) In case of a small number of answer-books, less than 25 for postgraduate courses and less than 100 for undergraduate courses, the evaluation is got done from outside the University jurisdiction either by post or through messenger to maintain secrecy and sanctity of the evaluation.

(xiii) Re-evaluation system is available in our prevailing examination system. For transparency we have provision to show the answer book to the candidates.

The above mentioned practices have helped in streamlining the work of examination branches. The most important factor is to draw the time limit for various activities involved in the conduct of examination right from paper-setting to declaring of all results and sending of Detailed Marks Cards. All effort must be made to follow the time schedule strictly. Various bottlenecks that sometimes arises have to be removed with personal intervention and attention at various stages of the work. There are specific and scientific rules for the award of internal assessment.

Advantages and Disadvantages

Advantages

The work regarding evaluation and declaration of result is completed within a short span of time. The basic database once prepared at the initial stage regarding particulars of candidates, subjects/group taken up etc. is used in the subsequent years. The preparation of DMCs/Certificates/Degrees has also become possible through the computer. The photographs of the candidates are also printed on all the Marks Cards/Degrees besides a hologram of the University which is also being pasted on all the Degrees. The timely declaration of result ensures starting of the next session on time from the first week of July in all the colleges as well in the University departments. With computerization of results the chances of any mistake in the tabulation of results has altogether been eliminated. With the putting on of the result on the University website the people in general are in a position to have instantaneous access to the result.

Obstacles faced if any and strategies adopted to overcome them

Obstacles

There is a general apathy among teachers towards setting of question papers, evaluation of answer scripts and other assignments related to examinations.

Dissipating strength of regular teachers in the colleges and universities has been observed owing to the over-austere government policy of disallowing the appointment of regular teachers on permanent basis even to fill up vacancies against sanctioned posts.

Strategies

- Teachers are considered on duty leave while on evaluation and other examination related work;
- On the spot remuneration is paid for evaluation purposes;
- The staff are provided all the facilities including leave, refreshment and other working conditions suited to their assignments;
- Head examiners are appointed for the convenience and guidance of the less experienced teachers;

At the level of clerks which is the entry level for office staff, the University has started recruiting computer qualified graduates in place of general graduates.

The work regarding evaluation and declaration of result is completed within a short span of time. With the timely declaration of results, the students are enabled to take admission and appear for the various job-related competitive tests in time. The academic session starts in the first week of July every year, thereby placing the University in a position to fulfill the condition of minimum of 180 teaching days in the academic session. All the stake holders have the satisfaction and confidence in the examination system operative now. With computerization of results the chances of any mistake in the tabulation of results has altogether been eliminated.

Resources Required

Modern technology in preparing database and computerization of results is required. Short term computer courses for the updating of knowledge of the staff engaged in the task need to be introduced. The government should also lift the ban on the appointment of regular teachers on a permanent basis by at least allowing the filling up of vacancies against sanctioned posts in the colleges and universities. This would help expand the pool of regular teachers for the examination work. Periodic updating of the infrastructure including computer hardware and software is necessary and therefore recurring funds need to be provided.

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2.7. CODING AND PACKING OF ANSWER SCRIPTS AT TWO DIFFERENT LEVELS

The Context

If the folding and pinning of the register number of the scripts and packaging them for valuation is done by the same set of staff, the secrecy of register number coded for evaluation gets revealed. In order to avoid such a revelation, the concealment of register numbers is done by a team at the college centre and packaging the scripts after mixing them is done by staff of the University at a different point of time.

The Objectives

The sole objective is to maintain the secrecy of register numbers with the overall objective of maintaining the quality of evaluation.

The Practice

In order to maintain the secrecy of evaluation system the U.G. scripts are subjected to first phase coding at the level of the college centre. Under the said first phase coding the register numbers are concealed by the staff of the college by folding and pinning the register number portion of the answer scripts. The answer scripts so prepared by the college staff are sent to University in bundles. In the University, such scripts are randomly mixed and packaged by the University staff. Thus the movement of a particular script and in which packet it is packed is not known to anybody either at the college level or at the University level, ensuring a fair evaluation.

(a) Procedure of Evaluation: (Under Graduate)

After the completion of examination in a given paper in the examination centre (college) the personnel associated with the examination there conduct what is known as the *first phase* of coding. In the first phase of coding, the register number written on the answer script by the examinees is concealed by the personnel by covering the register number portion of the script by folding and pinning the same. After so folding and pinning the scripts they are put in a cloth cover and sealed with wax in the presence of the internal senior supervisor, who will be Principal of the college and external senior supervisor who is a member of the faculty of another affiliated college. The answer scripts bundles from the college centres are collected by the members of the staff of the University drafted for the purpose. After receiving the answer scripts from the college centre, the bundles of answer scripts are opened by the members of the staff of the University and they take up what is called *second phase* of coding. In the second phase of coding the concerned staff members mix up the

scripts randomly and package the scripts for the purpose of evaluation. In each packet 16 scripts are kept. The evaluation of scripts is assigned to examiners from out of the panel of examiners prepared by the Boards of Studies. Two packets of scripts, one in the morning session and the other in the afternoon session is given to an examiner for evaluation. In order to keep check on the quality of evaluation the reviewers are appointed on a proportionate basis, entrusted with the responsibility of reviewing the answer scripts evaluated by the examiners. The entire process of evaluation is under the charge of the custodian and for each paper a chairman drawn on the basis of seniority is appointed.

Once the evaluation of a particular paper is completed the de-coding of answer scripts is taken up by the teachers of affiliated colleges. The de-coding is done under the direct supervision of the Registrar (Evaluation).

(b) Procedure of Evaluations : (Post Graduation)

Similarly the answer scripts of post graduate examinations are coded and packaged and 20 scripts are placed in one packet. The evaluation is done by an internal examiner drawn from the concerned P. G. department and an external examiner from another University from out of the panel of examiners prepared by the Board of Studies. The evaluation of P. G. scripts is by double valuation. The internal and external examiners are appointed as per the work distribution given by the Chairman of the Board of Examiners. After the completion of evaluation the results are tabulated by the Board of Examiners after de-coding the scripts by themselves. In the tabulation of results of P.G. scripts no ministerial staffs are involved and it is the Board of Examiners who solely undertakes the tabulation and de-coding of scripts.

Advantages and Disadvantages

The secrecy of the register numbers concealed is ensured and the quality of evaluation is assured. There are no discernable disadvantages.

Obstacles faced if any and strategies adopted to overcome them

Nil

Impact of the Practice

The secrecy of register numbers is ensured and a fair quality of evaluation is assured. The answer scripts, since they are mixed up and coded will not be accessible to unscrupulous elements during the evaluation process.

Resources Required

No additional resources are required except deploying the available manpower at the college and University level to take up the work on some nominal remuneration.

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2.8. TATKAL SYSTEM

The Context	Many students who needed marks statements and degree certificates urgently to pursue higher studies or for applying for jobs had to wait at least a week or two before getting the certificates. This delay sometimes leads to losing good job opportunities/studying further. The Tatkal System has been introduced to remove the hardships faced by the students.
The Objectives	Students are issued marks statements and degree certificates within hours/in one day, making it possible for them to avoid delay.
The Practice	Tatkal system has been introduced to issue certificates (mark statements, degree certificates of any semester which the candidate has passed) within a day/a few hours on payment of extra tatkal charges Rs. 300/- along with the stipulated fees. At least 20 to 30 students get the benefit on an average per day.
Advantages and Disadvantages	Earlier the students used to run from pillar to post, trying to seek the help of someone in the office, involving at times some transaction cost.
Obstacles faced if any and strategies adopted to overcome them	There was opposition in the senate on the ground that thatkal fee originally fixed at Rs. 500/- was too high. The University positively responded by reducing it to Rs. 300/-. (Rs. 150/- only for SC/ST students).
Impact of the Practice	The tatkal system has been successful in avoiding delay in issue of marks statements and degree certificates. The system has been very much welcomed by the students and those who are genuinely in urgent need of the certificates are most willing to pay the amount of Rs. 300/-, over and above the stipulated fees.
Resources Required	No special resources are required, excepting the immediate attention/time of the concerned staff.
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2.9. ISSUE OF PHOTOCOPY OF ANSWER SCRIPTS AND REVALUATION FACILITIES

The Context

The provision to issue a photo copy of the assessed answer books to the examinees after declaration of the results was started since 2000 in Maharashtra with the implementation of Uniform Ordinances passed by the Chancellor. However, there was no provision of appeal, if students wished to challenge the original assessment. The students from one of the universities in Maharashtra approached the Hon'ble High Court. The Hon'ble High Court directed that the University should reintroduce the revaluation.

This court decision was not a case law; however, Shivaji University, in the interest of the students decided to introduce the revaluation as per the guidelines given by the Hon'ble High Court. The facility of revaluation was introduced in the University from the March/April 2005 examination. After initiation of the revaluation, it was observed that the variation in a few cases were considerable. To avoid such major changes in the revaluation, the paper setters are requested to submit the model answers at the time of paper setting. These model answers are discussed by moderators along with examiners and paper setters.

The Objective

The practice permits the re-assessment of answer books of aggrieved students.

The Practice

After getting the photo copy of the assessed answer book, if an examinee feels that his/her answer book has been under evaluated, then s/he can apply for the redressal of grievance along with points of grievance and justification regarding the same. After getting the application, the examination section places it before the four member committee called Redressal committee for consideration. This committee consists of the Dean (Chairman), Chairman of concerned Board of Studies, Subject Expert and the Controller of Examination (Secretary to the Committee). The attendance of the subject expert for the fulfilment of quorum for the meeting is compulsory. The subject expert is nominated by the Vice Chancellor from the list of teachers having more than fifteen years teaching experience in that subject. After due consideration of objections and justifications given by the examinee, the Committee recommends whether the case should be sent for revaluation. If the Committee recommends the case for revaluation, the revaluation is carried out by an examiner other than the original examiner/moderator. During the process of revaluation, the seat number, original marks and the identity of the original examinee

are masked. If the change in the marks allotted by original examiner and the re-evaluator is more than $\pm 10\%$ then that change is considered and fees paid by the candidate are refunded. However, if that change in marks leads to the change in the result of the candidate either in the examination or in a subject then that change is considered even if it is less than 10%. Due to this revaluation system, justice is given to the aggrieved candidates. Also, this system reduces the probability of malpractices during revaluation. Variations between revaluation and the original mark system of the model answers are considered and the comparison noted. The paper setters are expected to submit the model answer/synoptic answers and scheme of marking at the time of paper setting. This is discussed thoroughly with examiners and moderators by paper setters and then line of assessment is finalized.

Advantages and Disadvantages

Earlier System	System with Scrutiny and Direct Data Entry
There was no provision of revaluation. There was no chance to the aggrieved students to appeal against the incorrect evaluation if any.	This system provides opportunity to the students to verify their doubts regarding the assessment
Only photo copy of the answer books was issued.	Student can apply for the revaluation after getting the photo copy of the answer book.

Obstacles faced if any and strategies adopted to overcome them

No obstacle is faced by the University in implementing this practice. However, in the earlier practice, time required to issue the photo copy was more and it was not possible to complete the procedure of revaluation in the short period. This was mainly due to the verification process before issue of the photo copy to the student.

University has, therefore, decided to issue the photo copy to the student as it is without any verification. If there is any query/doubt regarding the totalling of the marks, due to any un-assessed part of the answer book, then students are permitted to apply for verification within seven days from the date of receipt of the copy of the answer book. For this process no additional fees are charged. Otherwise, students desiring to challenge the original assessment can apply for the revaluation. Presently, photo copies of the answer books are issued within seven days from the receipt of the application of the student.

**Impact of
the Practice**

Generally, about one percent of students apply for the verification process and 0.5 percent of the students obtaining photo copy of the answer books apply for the reevaluation. The overall impact of this practice is that the students having doubts about their marks now have provision of appeal and can get justice. However, in the cases of those students, who only wish to apply, to avail this facility without having any justification, their applications are rejected at the Redressal Committee level. This ensures that only those students who are really aggrieved apply. This has also ensured more careful assessment by teachers. The variations observed in some cases were considerable; hence the practice of model answer/synoptic answer/scheme of marking is introduced since the Oct/Nov. 2005 examination.

**Resources
Required**

The system does not require additional resources. The work of the reevaluation needs additional meetings of the Redressal Committee. For this purpose, some increase in work is inevitable.

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2.10. COMPREHENSIVE INTERNAL EVALUATION SYSTEM

The Context

The introduction of semester system in the country without having a clear perspective as to its utility in instruction and evaluation and the tendency of breaking the evaluation between external and internal examiners with a divided responsibility between the two types of examiners has turned out to be a dismal failure.

The Birla Institute of Technology and Science, Pilani, therefore, decided to go in for internal evaluation with evaluation being entirely the responsibility of the teacher teaching the course. However, the institute has ensured the credibility of the system by introducing various internal checks, and also by making it sufficiently open. A student is free to interact with his teacher and seek clarifications about the marks awarded in a particular test or quiz, if necessary.

The Objectives

For the success of a continuous internal evaluation system, the most important prerequisite is the mutual trust between the teacher, the taught and the system itself. The continuous evaluation provides more opportunities to the teacher to get feedback as to the progress of his students and his own performance and apply mid-course correction, if necessary. The varied nature of these evaluation instruments does provide opportunities to judge different aspects of a student's understanding of the subject. To reinforce this interplay between the teacher, the student and the subject, a healthy practice of returning the answer books to the students has been introduced so that they can get necessary feedback on their performance from the teacher in a diagnostic manner. To ensure objectivity and credibility necessary safeguards have been built in the system so that a student who is not satisfied with his evaluation has an opportunity to make an appeal for re-evaluation.

As a matter of fact, the entire process of evaluation is carefully planned and shared with the students from the very beginning of the semester. Within a week of the beginning of the semester the teacher informs the class as to what the course content is, its objectives, break-up of the lessons, evaluation scheme in terms of different types of components and their weightages through a 'course handout'. The teacher provides the necessary guidance and counselling through chamber consultation hours. Thus the system provides ways and means to ensure its creditability and reliability.

The Practice

The evaluation of students is an integral part of the teaching-learning process. In a classroom situation, evaluation is confined to the performance of a student with respect to the course. To evaluate traits such as the depth of his knowledge, skills, application of principles to problem solving, creativity, ability to communicate and ability to face unknown situations etc., various instruments of evaluation are adopted at BITS. These are evaluated through tests, quizzes, home assignments, seminars, project reports, etc. Some of these instruments are written and some are oral; some are closed book and some are open book. The use of open book examination for each course is at least 10 percent of the total evaluation.

BITS lays great stress on the fact that tests and examinations are a measurement of the learning process; hence they must be devised with great thought and care. Since many variables are involved in examinations, several tests/quizzes are conducted to produce more reliable data about the quality of students. These tests/quizzes are conducted to cover a limited portion of the course.

A comprehensive examination is given at the terminal point which covers the whole course and tests the students' ingenuity to integrate and interlink the various concepts and tools of analysis to which he has been exposed.

A committee called ACONAR which had three members who were deeply involved in the implementation of the reform was constituted.

Grading

The final responsibility of a teacher conducting a course is to evaluate the total performance of a student on the various components given during the semester. In the first instance the teacher gives numerical marks for various components of evaluation whose weightages have been already allocated and announced to the students at the beginning of the semester. The teacher accumulates the marks in all these components and presents them in the form of a histogram identifying clearly the highest and the lowest marks obtained, and the average marks of the class. With this information, the process of grading starts by identifying clusters so that the students within each cluster have the same qualitative performance. The teacher completes the grading process which is essentially qualitative by relating the letter grades A, B, C, D and E to various clusters identified earlier. BITS has adopted a 5 point scale letter grading system A, B, C, D and E for a course, the letters standing for the qualities described by excellent, good, fair, poor and exposed respectively.

Borderline Cases

It is a common feature that while deciding on the cut-off points for identifying various letter grades there can be some borderline cases – especially in courses dealing with a large number of students. The normal practice evolved is to look for additional information on the student who happens to be on the border line and to examine case by case and decide whether the student deserves a higher grade. The factors taken into account for such a decision are: regularity of students, hard work and sincere effort put in, consistency and trend towards improvement in the performance, and interest in the course.

The institute offers a large number of courses to the students during his/her academic career, and this information about letter grades in each of the courses is of limited significance. For an outsider, like the prospective employer, the overall performance is of interest. BITS employs unit methods and a cumulative grade point average (CGPA) which is a figure of merit indicative of overall student performance. CGPA is computed as follows:

$$\text{CGPA} = \frac{u_1g_1 + u_2g_2 + u_3g_3 + \dots}{u_1 + u_2 + u_3}$$

where $u_1, u_2, u_3 \dots$ denote units associated with the courses taken by the students and $g_1, g_2, g_3 \dots$ denote grade points of the letter grades awarded in the respective courses.

Advantages and Disadvantages

One of the salient features of BITS internal system of evaluation is the prompt announcement of the results. Within three days of holding of the comprehensive examination, the instructor-in-charge is required to complete the grading and transmit the final course grades. This greatly facilitates the release of student grade cards well in time. BITS has achieved the distinction of planning and scheduling the examination dates well ahead at the beginning of a semester itself, conducting them in a systematic manner and announcing the results within the shortest possible time. This is essential for registering the students in the ensuing semester.

Impact of the Practice

At the end of each semester a student gets a grade card which reflects the academic performance in terms of grades for the courses registered in that semester as well as CGPA up to that point, from the entry point.

On the completion of a degree programme a student is given a transcript which contains a set of copies of grade cards given to the student at the end of each semester. Thus the transcript gives complete information about the performance of the student. No performance is left out in recording the computation of CGPA.

The Institute provides a facility under which a student can repeat any course in order to improve his grade. In all such cases the latest grade automatically replaces the earliest grade(s) obtained in that course and the CGPA is updated accordingly.

**Resources
Required**

No additional financial liability.

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2.11. MANAGEMENT OF THE EXAMINATION SYSTEM

The Context

The University of North Bengal has to cater to a huge locational plurality of the affiliated colleges diversely situated in the Districts of the Himalayan Region and three Districts of the Eastern Plains Region of the State of West Bengal. In addition, the University has to serve all the Under Graduate Colleges situated in the State of Sikkim. Nearly sixty thousand examinees / students of affiliated colleges appear at the University examination every year. The University had to experience tremendous co-ordination problems in dealing with pre-publication and post-publication processes of University examinations. Resultantly, there had been chaos in conducting the examinations which caused considerable delay in the publication of examination results. Altogether, the problem relating to examination administration proved institutional inability which registered social disenchantment. In order to prevent growing discontent and to bring good governance into the University examination management system, the University has brought about unprecedented changes in the whole system.

To monitor and co-ordinate the process of examination, the colleges located in such a vast area and in different localities, have developed the examination management system with the involvement of all stake holders.

The Objectives

The Objectives of the practice are:-

- Ensuring effective participation of all the stake holders of the University examination system.
- De-centralizing University examination administration system.
- Establishing confidentiality of the examination process as and when required.
- Assuring confidence to the examinees in the system.
- Assuring regularity in the publication of results of all examinations conducted by the University within a reasonable time frame of 45-85 days.
- Assuring democratization of education as and when required and if possible in tune with the principle of confidentiality, transparency and fairness of examinations.

The Practice

The practice has two distinctive parts: (a) Pre-Examination Process and (b) Post Examination Process. To make both the processes effective, a continuous process of mutual interaction on the basis of a scientific networking has been brought to practice. The entire examination management structure has been sub divided into different sections. Each section is identified with a working leader along with required number of employees. The job responsibility of every section is defined. Different activities under the jobs have been minutely specified.

The University of North Bengal has compartmentalized all the affiliated colleges under nine Zonal Nodal Centres situated at different sub-regions of the Districts of Northern Region of the State of West Bengal and the Districts of the State of Sikkim. Each of the nine Nodal Centres is headed by the Principal of the college identified as the Nodal College. The members of the Nodal Centres are drawn from the colleges situated in the sub-region, including Principals of all the colleges under a particular Nodal Centre, teachers' and employees' representatives for the Court, Under Graduate Council, Faculty Council of the University of North Bengal from the region where the colleges are situated. The Nodal Centres are the extended arms of the University performing various functions related to the conduct of the examinations, namely:

- i) Coordinating University examinations at the college centres;
- ii) Playing the observer's role and sending visiting teams to different college centres of the University examinations;
- iii) Co-ordinating with the colleges by way of circulating circulars and notices received from the University, to the colleges, from time to time;
- iv) Playing the role of distribution centre of University examination scripts for the examiners of the Colleges under the respective Nodal Centre;
- v) Coordinating with the evaluators/examiners for proper and timely evaluation and helping them to send back the evaluated scripts to the Head Examiners/ Coordinators of examinations in different subjects;
- vi) Organizing training and awareness programmes for the teachers and employees relating to University examination matters;
- vii) Coordinating with the teachers of the colleges representing Board of Studies in different subjects;
- viii) Updating the list of teachers and employees of the colleges;

Advantages and Disadvantages

- ix) Establishing contact and required liaison with the local administration for free and fair examination in the colleges;
 - x) Arrangements for receiving college-wise University examination result sheets and mark sheets from the University and distributing them to the colleges;
 - xi) Maintaining continuous links with the University for updated information/ circulars related to the examinations and disseminating the same to the colleges.
- i) Timely declaration of the examination results;
 - ii) The commencement of the academic session has been made regular;
 - iii) Since the examinations are held strictly on the basis of a yearly academic calendar, a minimum of 180 teaching days have been ensured both in the colleges as well as in the University departments;
 - iv) Computerized examination process has made the system almost error free;
 - v) Fairness and transparency have been assured;
 - vi) Ordinarily, evaluated examination scripts are made open to public scrutiny.

Obstacles faced, if any and strategies adopted to overcome them

The newly adopted reform proposals, when considered for implementation to bring in structural changes in the examination system, received strong resentments from all stakeholders. The most fortunate part is that the people who were critical on the new practice were almost numerically a very small group. To overcome resistance and doubts, the University did never show any kind of commanding attitude; rather from the very beginning of the adoption of the new practice, the University has tried to involve all stake holders by way of continuous sensitization and awareness programmes. The Vice-Chancellor, the Controller of Examinations and other important dignitaries, keep visiting the different Nodal Centres and meeting the teachers and employees of the colleges. Such meetings have been held twice every year for the last six years. At the University level, a general meeting of the Principals, Examination Conveners of the colleges and University level stake holders is usually held every year on various issues relating to examination. In-house training programmes for the employees have been a regular activity of the office of the Controller of Examinations. Besides, the regular chapters of the statutory authorities of the University are held where the policies and planning on examinations are formulated.

Impact of the Practice

The impact of the practice, so far adopted, has shown visible quantitative and qualitative changes. Some of them are listed below:

- i) Students' discontent on delayed publication of results have been reduced to zero;
- ii) Involvement of the teachers has been assured;
- iii) A sense of pride has been assured for the employees working in the Examination Department of the University and colleges;
- iv) Litigation on examination matters have been reduced to a minimum;
- v) The Tatkal Yojna adopted in the Examination Department for providing any kind of examination related service has been a tremendous success and has enhanced the material capacity of the University;
- vi) On-the-spot payment policy has encouraged the teachers to work on any Examination-related assignment;
- vii) Over and above all this, the regularized system of examination has been able to provide a positive message to society which in return has increased the credibility of the University and has reduced the hiatus between society and the University. The process of legitimization has been almost complete.

Resources Required

During the last six years, the University has revised the examination fees only once. The Examination Department mobilized additional revenues from different services. This includes transcription fees, document verification fees, provisional certificate fees, duplicate mark sheet fees, etc. The resources mobilized are partly used for creating the required infrastructure and skill upgradation of the employees. This has helped to improve better work culture in the Examination Department.

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2.12. TRANSPARENCY IN THE EVALUATION PROCESS

The Context

The teaching, learning, and evaluation are integrated and indissoluble components of education. The Sri Sathya Sai Institute of Higher Learning, Prasanthinilayam desired that the evaluation system should also serve as an aid in the process of learning. The Institute felt, that this, along with teaching, should be an integral part of aiding learning by the student. The evaluation process should include continuous internal evaluation, the conduct of examination, the evaluation of answer scripts and indicating the performance by grading rather than marking. It is in this context that the evaluation practices were chosen and introduced.

The Objectives

The examination reforms, in the Institute, is not merely a technique to improve the evaluation system but to be viewed as an aim at improving the education process itself.

The main objectives of evaluation procedures are:

- (a) The system of evaluation should be adequate and comprehensive so as to measure different types of skills.
- (b) The system should provide a feedback:
 1. to the students regarding their strengths and weaknesses; and
 2. to the teacher as to how far s/he has been able to benefit the students and to modify his/her approach and teaching methods.
- (c) To evaluate the performance by a method, that will be free from subjectivity and be accurate as far as possible.

The Practice

The evaluation system, as adopted by the Institute, has two components, viz,

1. The Continuous Internal Evaluation (CIE)
2. The End Semester Examination (ESE)

The ratio of weightage is 30% in CIE and 70% in ESE for UG and 50% in CIE and 50% in ESE for PG. The answer scripts are given back to the students after evaluation for their information, providing sufficient transparency and accountability.

CIE Components: CIE programme includes components such as Quizzes, Tests, Assignments, Seminars, Lab Exercises, Workshops and Practicals. For each programme viz., UG, PG and Professional courses, suitable components are included in their CIE.

CIE marks are shown to students along with their answer scripts by the teacher concerned enabling them to have access to the evaluated answer scripts before the marks are forwarded to the examination section.

This exercise ensures:

- (i) providing a feedback to the students on the mistakes committed;
- (ii) providing an opportunity to learn the subject more accurately and adequately;
- (iii) transparency in the evaluation system.

Only CIE and no ESE for certain courses:

There are a few papers in UG, PG and Professional Programmes, which are evaluated totally by CIE; that means, there would be no end semester examinations in these papers.

The following are a few examples:

- (i) Awareness Courses at the UG and PG levels
- (ii) Self Awareness and Personality Development in M.B.A. and M.F.M.
- (iii) Computers in Physics – in M.Sc. Physics
- (iv) Colloquium and Software Lab – in M.Tech. Programme
- (v) Practicals for Science courses at the UG and PG levels.

In all the above courses including practicals, the weightage of the CIE is 100%.

External Members:

A general thrust is given on the external element in the end semester examinations, such as external paper setters, moderators of the question papers and evaluators of the answer scripts.

The paper setter is expected to match the content of the syllabus with the type of questions and different abilities and skills tested. For this purpose the paper setter has to prepare a blue print or a table of specifications which enables him to match all the above mentioned three components viz., (i) syllabus content, (ii) skills tested and (iii) the types of questions.

The paper setter has to submit a scheme of valuation which is called a Master Copy, along with the responses for objective type of questions and synopsis of answers for long answer questions. In the Master Copy 15 abilities and skills are listed with a view to including a few of them in the questions while setting a question paper.

Grading System:

Elimination of subjectivity to the possible extent in the marking system, is accorded by introducing the grading system, by converting marks into grades. Marking of the answer scripts are done by a scheme of evaluation provided by the paper setter along with an “Analytical Marking Scheme.”

Question Banking:

The Institute has prepared Question Banks for various courses taught at UG level. They are used by the faculty for setting the question papers and at the time of scrutinizing the question papers by the Moderation Boards. Question Banks are updated by the departments as and when the syllabus is changed or new subjects are introduced and also to keep pace with the developments in the field.

Structured Question Paper Pattern:

The question paper carries the questions such as Objective type (20 marks), Short Answer type questions (40 marks) and the Long Answer Questions (40 marks), to test the skills such as analysis, synthesis, drawing, creativity, originality, etc., in addition to memory based questions. Further the pattern of the question paper, with only internal choice (no global choice), motivates the students to prepare for the entire syllabus and discourages selective study.

Advantages and Disadvantages

The level of achievement is maintained high in the performance of students in the examinations. Further the percentage of passes in each semester examinations is always about 95% or so.

Obstacles faced if any and strategies adopted to overcome them

At the time of introduction of the Examination Reforms against the traditional end-examination system, in order to give orientation to teachers of the Institute, several workshops were conducted with the help of AIU and therefore, there have been no obstacles. Of late, the orientation courses are conducted periodically either centrally at the University or at the Campus levels for teachers, especially for the new teachers.

Impact of the Practice

Earlier three written tests, quizzes, surprise tests, etc. were introduced as part of the CIE. Later it was reduced to two and thereafter, only one mid-semester test is in vogue, to avoid more number of tests throughout the semester, concentrating more on the teaching-learning process. However, informal quizzes, tests, assignments, etc are encouraged.

The examination reforms are found to have fitted in well, as an aid to maximize learning by the students and also as a measure of the students' mastery over the subject. It has been widely understood by the teachers and found to be rewarding to the students.

Resources Required

In the beginning, resource personnel were drawn from AIU and the workshop conducted by the Institute using Institute's funds. Necessary equipments, literatures, books, journals, etc. were procured. Later, an Examination Reforms Unit (ERU) was set up with a coordinator as head and an office equipped with computers and necessary personnel for this purpose, until it became part of the functioning of various departments.

Contact Details

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2.13. QUESTION PAPER RELATED GRIEVANCE REDRESSAL MECHANISM

The Context

The evaluation is both formative and summative, with a larger portion as summative carried out through end term examination where paper setting is done by external experts and there is no provision of moderation. This keeps the University system out of the danger of being endogenic (if it is completely internal) and maintains a balance in the system. To safeguard itself from the danger of losing the purpose of evaluation by being completely external (as then there is no feedback) Banasthali Vidyapith has adopted a unique mechanism of “Grievance Redressal”, where the students are free to submit their grievances related to the question papers, to the University, which are very methodically analyzed and addressed. This is a very scientific way to get a constructive feedback of the teaching-learning of a subject as described in subsequent sections. By doing this, Banasthali Vidyapith has maintained a proper balance between formative and summative evaluation.

The Objective

- (a) to create an environment that nurtures critical thinking, intellectual curiosity and scholarly inquiry;
- (b) to make faculty members more responsible for monitoring the accuracy, validity and integrity of a student’s course assignment and its evaluation.
- (c) to make the evaluation system relevant to the era, realistic in terms of main course and other parallel courses offered and reliable without any predictable and unpredictable slip in the system.

The Practice

Best Performance Evaluation Practice

- (a) The summative examination is external where the question papers are set by external experts and used without moderation. Free, fair and impartial evaluations of 3600 + residential students are being conducted with great confidence by setting 1000 + question papers by external experts.
- (b) In the summative evaluation, great care is always taken to ensure that the question paper is set as per the course requirements for which the paper setters are provided with the course content of the paper (judiciously divided into five units in case of undergraduate courses and into three sections in case of the postgraduate courses), model paper and clear guidelines.

In a summative examination, if the students find any problem in the question paper, they have provision of filing their grievances in a prescribed proforma (Figure-1) to be submitted to the centre superintendent within two hours of completion of examination. This time limit is kept to prevent any possibility of manipulations by students, peers or the faculty members.

BANASTHALI VIDYAPITH	
(Request for Redressal for Grievance in Examinations)	
F-I/ /2005 – 2006	Date:
<ol style="list-style-type: none"> 1. Name of the Examination 2. Subject 3. Paper, (With nomenclature) 4. Date of examination 5. Name of the teacher (who taught the paper) 6. Grievance (give details, use additional sheet, if necessary) 	
<ol style="list-style-type: none"> 7. Signature of the Examinees (on the back cover) <p>Forwarded for necessary action (with remarks, if any) Encl: 5 question papers</p>	
(CENTRE SUPERINTENDENT)	

Figure-1: Proforma of the request for Grievance Redressal to be submitted by the students

The grievances are then forwarded to the respective Heads of the Department of the subject concerned for comments from the teacher concerned. The Head of the Department is also asked to give his/her comments on the teacher's response to the grievances (Figure 2).

BANASTHALI VIDYAPITH	
Examination (Secrecy) Section	
(Request for Comments on Grievance of the Examinees)	
1. Name of the Examination	
2. Subject	
3. Paper, (With nomenclature)	
4. Date of examination	
5. Grievance	
<input type="text"/>	
6. Teacher's Comments	
<input type="text"/>	
Date	(Signature)
7. Comments of the Head of the Department	
<input type="text"/>	
Date	(Signature)

Figure-2: Proforma for the comments on the grievance by the teacher concerned and Head of the department

Advantages and Disadvantages

All the grievances along with teachers' and Heads' comments are then presented to a "Grievance Redressal Committee" appointed by the Director. The Grievance Redressal Committee is constituted by selecting six members drawn from senior members of the faculties. Each member has a tenure of three years and every year two members are changed. For each grievance the Grievance Redressal Committee meets and interrogates the students' representatives drawn randomly from the class and also interrogates the teacher concerned (if need be) to decide.

The various types of grievance clearly give a complete picture of the evaluation system. The grievance redressal system gives important feedback on:

- selection of examiner,
- the quality of teaching,
- the scope and content of curriculum and
- the quality of printing of question papers.

Thus, it has emerged as a valuable tool to monitor and improve the teaching-learning and evaluation process in an integrated manner.

Impact of the Practice

The unique practice of grievance redressal in the evaluation process of the Vidyapith is highly welcome by both students and teachers and both the parties express their confidence by noting that it is able to take care of the pitfalls of the summative evaluation process, if any. Vidyapith's strongly advocated external summative evaluation without any moderation, makes not only the students more attentive to curricula but also makes the teachers keep themselves seriously adhered to the dealings of the curricula.

Vidyapith's existing evaluation strategy has substantially gained the confidence of students and parents in terms of its fairness, reliability and extreme regularity. This extreme regularity of the session is highly appreciated by a large number of alumni placed in different professional establishments.

Resources Required

The University can grow, improve its practices and reach to its vision according to its financial, human and physical resources. Apart from the necessary finance, human resource, space and other infrastructure needed to conduct the examinations, the "Grievance Redressal" mechanism requires no additional resource. It only requires a careful monitoring and analysis of grievances filed by the students and comments

received from the teacher and Head of the department of the subject concerned. It is an integral part of the evaluation system of Banasthali Vidyapith resulting in comprehensive evaluation of not only the students but also the complete teaching-learning process.

Obstacles faced if any and strategies adopted to overcome them

Nil

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2.14. SIMULTANEOUS CONDUCT OF EXAMINATIONS AND EVALUATIONS

The Context

The feedback obtained from the students had brought out the difficulties they had to face if the results of the examinations were published very late.

- (a) If the results are published late for April/May examinations, students are not able to go for higher studies in many institutions where admissions are quickly completed.
- (b) Similarly it affects the better employment opportunities available in June/July.
- (c) If results are published late for the November/April examinations students who have arrears do not get sufficient time to prepare for the arrears along with the regular papers.

These difficulties could be overcome only by a speedy evaluation and publication of results.

The Objectives

- (a) To arrange for evaluation process along with the conduct of examination and
- (b) To involve more examiners to evaluate the papers in order to reduce the number of days of evaluation.

The Practice

1. The details of evaluation camp are planned along with the preparation of the examination schemes.

Date of the examination	Date of the evaluation
Day I	
Day II	▲ Valuation of Day I papers begins
Day III	▲ Valuation of Day II papers begins
Day IV	▲ Valuation of Day III papers begins
Day V	▲ Valuation of Day IV papers begins
Day VI	▲ Valuation of Day V papers begins

Table 1: The date of examinations and the date of evaluation of papers

2. For a normal examination schedule of ten days this method (Table 1) has helped to complete the evaluation within twelve days.
3. Addition and verification of assignment of marks is checked in the valuation hall itself with the assistance of 'Helpers' under Camp Officers.
4. The total number of examiners for each paper is planned in such a way that each examiner has not more than three days for evaluation.
5. Checking process in the office of the Controller of Examinations involves rechecking and re-totalling, under the direction of the Controller to avoid any mistake made earlier.
6. Computerized results are checked again with regard to internal and external marks to avoid errors.
7. The statements of marks is checked again with reference to the following by a group of seven assistants assembled in a group.
 1. Name of the student (spelling and initials);
 2. Date of Birth;
 3. Register Number;
 4. Title of the subjects;
 5. Internal marks (with the list given by the course teacher);
 6. External marks (with the help of foil sheets submitted by the examiners);
 7. Total of internal and external marks;
 8. Class and Distinction given for the final year students;
8. For verification of mark sheets following points are checked by an independent group
 - (a) Fixation of college seal;
 - (b) Signatures of The Principal and The Controller of Examinations;
 - (c) Entries of marks are made in the Master Register also where each student is allocated one page to contain all these details for the future use;
 - (d) Year wise data are maintained, through suitable software.

Advantages and Disadvantages	<ol style="list-style-type: none"> 1. Quick publication of results; 2. Advantageous to the students, to apply for higher studies elsewhere as the mark sheets are available to them quickly; 3. Consolidated statement of marks is given to all the final year students
Obstacles faced if any and strategies adopted to overcome them	<p>Problem</p> <p>Sudden inability by examiners, to report for valuation of papers due to some unavoidable circumstances.</p> <p>Remedy</p> <p>A list of alternate examiners is always maintained. They are immediately contacted by phone with the request to report for valuation immediately.</p>
Impact of the Practice	<ol style="list-style-type: none"> 1. The implementation of the scheme over the years has helped to finalize the results and statement of marks within five days of the completion of the camp. 2. Results are published and mark sheets distributed to the final year students on 25th May for April/May examinations. Other students are given their results on the reopening day of each semester. 3. The completion and publication of results during the semester holidays itself gives sufficient time to the office of the Controller of Examinations to start the work for the examinations in the next semester.
Resources Required	<ol style="list-style-type: none"> 1. Additional personnel are required for the conduct of examination and valuation 2. Employment of a large number of examiners does result in some additional expenditure but it helps to expedite the results.
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2.15. IMMEDIATE SUPPLEMENTARY EXAMINATION AFTER PUBLICATION OF THE RESULTS

The Context

If a student fails in an Odd/Even semester examination he can reappear only after one year in the subsequent Odd/Even semester examinations. This delays the successful completion of the course by academically poor students. In many cases the students could not complete their course due to failure in one or two papers. In some cases the students took more than five years to complete the degree. Moreover, if they appear for the arrear papers during the subsequent year, they will have to prepare for their regular papers also and this may over-burden them. Therefore immediate supplementary examination was introduced after each end semester examination.

The Objectives

Immediate supplementary examinations were introduced with the following objectives:

1. To enable those students who fail in the semester examination to reappear for the same immediately.
2. If the supplementary examinations are conducted immediately after the semester examinations, the students do not forget their subjects and they can easily clear their arrears.

The Practice

Immediate supplementary examinations are conducted twenty days after the publication of the results of Odd/Even semester examination. A student who has failed Odd/Even semester examination can reappear for those papers in the Odd/Even semester supplementary examinations only. A student who has arrears of odd semester papers can reappear in the odd semester supplementary examinations.

On completion of the course if a student has failed in just one theory paper in semester V in the case of U.G. courses; in semester III in the case of M.A., M.Sc. and M.Com.; in semester V in the case of M.C.A.; or in semester I in the case of P.G.D.C.A. he/she can appear for the paper in the ensuing even semester supplementary examinations.

A student who fails in just one practical examination in semester VI in the case of U.G. courses, in semester III or IV in the case of M.Sc. or in semester V in the case of

M.C.A. or in semester II in the case of PGDC can appear for the practical examination in the ensuing even semester supplementary examinations. A student who fails in the project viva-voce only can appear for the same in the ensuing even semester supplementary examinations.

Advantages and Disadvantages

Advantages

- Students can clear their arrears immediately;
- Final year UG students can complete their arrears and join PG courses without wasting one year;
- The students remember their subjects and clear their arrears easily since supplementary examinations are conducted immediately after the semester examinations.

Disadvantages

- The controller office has to do more work;
- The college has to find time and space to conduct the examinations besides their regular schedule.

Obstacles faced if any and strategies adopted to overcome them

The conduct of immediate supplementary examinations requires more man power. The number of question papers required will also be double for a particular subject. Odd semester supplementary examinations are conducted after the college reopens for the even semester. This difficulty is nullified by conducting the examinations in both morning and evening sessions of a day thereby reducing the number of days of examinations.

Impact of the Practice

This kind of immediate supplementary examination system gives immediate chances to the students to write the examinations in which they have failed. This system also helps the students who could not write their end semester examinations due to illness or any other reason.

The students are able to clear their arrears immediately and they are able to concentrate on the subsequent semester work with full involvement and confidence. If a student clears the arrears at once it gives him a lot of confidence. Without any complex he takes more interest in the subject and moves further. Students and parents are aware of the fact that final year UG students who have arrears can clear those

arrears in supplementary examinations and can join PG courses without wasting a year. Immediate supplementary examinations also facilitate the conduct of remedial classes for those students who failed in end semester examinations before their supplementary examinations.

**Resources
Required**

The conduct of immediate supplementary examinations requires adequate question papers, man power to conduct the examinations as well as examiners for valuing the answer scripts.

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2.16. COMPREHENSIVE TESTING SYSTEM

The Context

When autonomy was introduced in the college, examination reform was one of the major initiatives that went into the autonomy. Semester system with continuous internal evaluation was necessitated in order to tide over the annual system, which tested the ability to memorize, remember and reproduce. Keeping in view the impact of internationalization of education, it was necessary to reform the examination pattern. The practical or applied aspect of the knowledge has to be taken into consideration. Along with modernization of curricula and courses of study, skill-training programmes have been added.

The Objectives

- Provide two components of evaluation - namely continuous internal assessment and summative examination;
- Test the competency of the students in knowledge, skill and comprehension;
- Bring about improvement in the effectiveness of the programmes;
- Assess the quality of learning;
- Increase student mobility and employability;
- Include innovative methods of testing;
- Provide testing in four skills (read, write, speak, comprehend) to enable the students to identify their comparative strengths and weaknesses and learn to improve themselves;
- Increase student (customer) satisfaction.

The Practice

Internal Assessment

The students' achievement in the learning process is evaluated through continuous internal assessment (CIA), summative examination in theory – each semester, and a year-end examination in practicals. The ratio between the theory and practical marks in the end semester examination is 1:1 (50:50).

Centralized Tests

Two centralized tests (internal) per semester are made mandatory and the total of the two tests is taken as the test component mark. Assignments, Quiz, Seminar, Practical Examinations, Comprehension/Listening Test, Open Book Assignment, Oral Tests,

Projects, Surveys, Paper Presentations, and Comprehensive Viva form the other components of the internal assessment. Components vary from subject to subject.

Skill-oriented components of internal assessment

Evaluation during
Group Discussion

Videography of
Presentation of
Performance

Internship

Paper
Presentation

Investigative
Projects

Application of
Principles Learnt
for Practical
Problems

Fabricating and
Assembling
Equipments

Reports on Field
Trips /
Industrial Visits

Power Point
Presentation of
Seminars

At the entry point (for UG) students are given a test EAT (English Attainment Test) to gauge the knowledge, skill and comprehension in English. Based on the marks obtained in the EAT, students are grouped into different sections. A Bridge Course is conducted for a week. Slow learners are given remedial teaching for a year. English department staff engaged themselves in material production and they have prepared materials for three different streams namely, Basic, Intermediate and Advanced. In the statement of marks, the stream will be indicated.

Apart from the test of knowledge, practical skills are also tested. All the first year undergraduate students have a computer course of one semester duration. The science students have their computer application course during the first semester and the Arts students have the same course during the second semester. Computer course is streamlined into two. The advanced course is offered to students who have basic computer knowledge from their higher secondary school. The courses are given after the regular classes. Students could avail the chances for more advanced computer courses at the college.

Final year undergraduate students have two hours of spoken English per week. The testing is mostly oral and internal. Spoken Hindi and French also increase the employability of the students.

Re-test

Re-test is given to students who missed anyone of the tests because of any valid reasons, after scrutinizing the genuineness of the reason for absence. No minimum is required in CIA and students are encouraged to perform better in the end semester examinations. After the first test (Test one) each staff meets the students who scored less marks and they are counselled and given remedial coaching.

A student can avail eight chances (with the syllabus which s/he studied) to clear any paper. After the 8th chance s/he can take the examination along with other students who have studied the new syllabus. In this case s/he has to study the new syllabus before s/he sits for the examination. S/he can also request for CIA improvement. This can be done only after eight chances are over.

Transparency in Examination – CIA and End Examination

Hundred percent transparency for both CIA and end examination for the I and II degree students is ensured as follows. The course teacher of each subject distributes the valued end semester answer scripts to the students for their scrutiny. Students are given the chance to clarify with the staff if they have any doubt regarding the mark allotment. Apart from this, through Grievance Cell students can request for any clarification or revaluation in the case of third years and postgraduate students.

For the final year students, a double valuation system is followed - one valuation by the course teacher and another by the external examiner. Average of the marks awarded by the two valuations will be taken, if the difference between the two does not exceed 15%. In case the difference is more than 15% the papers are subjected to third valuation.

Course Teachers' Interference

The course teacher influencing the external examiner by her suggestions/recommendations is removed completely by allowing the external examiner to evaluate the paper without having any contact with the course teachers.

Repeat Examination

Earlier the repeat examinations were conducted just before the end semester examination. This system caused students to forget what they studied in the previous semester and gave less time to prepare for the upcoming examinations. In order to facilitate the students to write the examinations well, supplementary examinations are conducted one month after the publication of the end semester result. Parents are given information regarding the performance of their wards especially about the one that need to appear for the supplementary examinations.

Now examination results are published within one month after the completion of the end semester examinations. This gives timely warning to the students to prepare for their repeat examination.

Comprehensive Viva

Comprehensive viva is introduced in order to help the students to have a thorough knowledge of their subjects. Listening tests in English are conducted to help the students to increase their communication skill. Third year students are given two hours spoken English classes per week and their communication ability in English is tested.

Advantages and Disadvantages

- Examination results are published within one month of completion of the end semester examinations;
- Corrected answer scripts of internal tests and end semester examinations are given to the students in order to facilitate 100% transparency;
- Repeat examinations (supplementary) are conducted one month after the publication of the result. This helps the students to prepare the examinations well;
- From the time the College became Autonomous, four skills (read, write, speak, comprehend) are tested under Part II English;
- All the UG students have a Certificate Course in Computer Application;
- All the students should have at least one additional Certificate/Diploma (an add on course) on completing the Degree.

Obstacles faced if any and strategies adopted to overcome them

During the early stage of Autonomy, external examiners used to set question papers for Language and English (Part I and Part II). It was found that most of the units were left out and the model question pattern was not followed. In order to overcome this difficulty, it was decided to have internal question setting. At least two sets of questions were invited by the Examination Section for each semester. The Controller of examination would choose one question paper.

Impact of the Practice

Students are satisfied with the existing examination system. The system is student friendly and student-centred. Examination reforms implemented by Fatima College are successful because of the system with continuous internal assessment and question papers that include both subjective and objective elements. The examination system tests the competency of the students.

The early publication of the result and repeat examinations conducted one month after the publication of the results help the students to go for higher education or job without wasting their time. Employability also is enhanced on account of the skill training in computer and communicative English. Students are satisfied with the examination system.

Resources Required

These require careful planning, automation of the examination section and adequate staff.

It is a practice in Fatima College to update the syllabus every two years and if need be, every year. This involves a lot of money from the examination section. Every year three sets of question papers are procured for each subject. Though the overall outcome is good a lot of money has to be spent.

Contact Details

The Controller of Examination
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3. CONCLUSION

Through assessment and accreditation of Higher Education Institutions NAAC envisages quality assurance, sustenance and excellence in the Indian Higher Education System. Assessment and Accreditation enables the institutions to know where they are positioned in the quality map of the country and what steps they need to take to make their institutions centres of excellence. NAAC has also been making continuous efforts to encourage the institutions to take up activities to enhance and sustain the quality. By encouraging establishment of Internal Quality Assurance Cells (IQACs), a quality monitoring body within the institutions, NAAC has developed continuous interaction with the institutions even after assessment and accreditation.

As a quality assurance agency, NAAC, by bringing out a volume like this, wanted the dissemination of the innovative practices adopted by institutions to fellow-institutions. This volume deals with various best practices in the field of “Evaluation of Students” initiated by the Universities and Autonomous Institutions. NAAC framed a format (a copy of which is enclosed as Appendix 1) for submitting the best practices an institution has innovated and implemented for its quality enhancement. This format was circulated to all the accredited universities and autonomous institutions. Out of the 75 practices received at our office, 16 practices have been short-listed for publication in this volume. Other practices were not included either because they were rather general practices or because they lacked uniqueness to consider as a best practice. This does not mean that this document contains an exhaustive list of the best practices on student evaluations, and, of course, NAAC is aware that many institutions in the country are following several innovative practices that are not communicated to it for inclusion in the present volume. The goal, as stated elsewhere, is to sensitize the higher education sector in the hope that the interested fellow institutions may customize these best practices to their individual context for effective conduct and management of examinations as well as the evaluation of the students. Sincere efforts, unbiased support and cooperation from the academic community are essential in realizing the goal of total quality in the performance of the institutions. This volume is a focused step towards this objective.

Appendix 1

Format to Compile Best Practices in Evaluation of Students

Title of the Practice	Title should be crisp and capture the essence of the practice
The Context	The circumstances that motivated the institution to introduce the best practices
The Objectives	Goal and Objective aimed to achieve by implementing the practice have to be mentioned
The Practice	Methodology of the practice with steps involved in implementing the practice
Advantages and Disadvantages	What are the improvements the practice has brought in and the factors (connected with the practice) which require further improvements
Obstacles faced, if any	The various impediments faced by the institution in introducing the practice and steps taken to overcome these obstacles.
Impact of the Practice	Benefit or outcome of the practice
Resources Required	Please mention the resources like manpower, materials and money required
Contact Details	Designation Name of the College University Address City Pincode Telephone Fax Email Website

From NAAC

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Appendix 3

List of the Contributing Institutions

Sl.No.	Name and Address	Sl.No.	Name and Address
1	Tezpur University Tezpur – 784 028 Tel: 03712 – 267114/ 267007 – 009 (O) Extn. 3141 / 3140	2	Jawaharlal Nehru Technological University, Kukatpally, Hyderabad – 560 072 Tel: 040 - 32422249 (O)
3	Shivaji University, Kolhapur - 416004 Tel: 0231-2693176/2609067 (O) Mobile: 09822069512	4	Bharathidasan University Tiruchirappalli - 620 024 Tel: 0431 - 2407016 (O)
5	Guru Nanak Dev University Amritsar Tel: 0183 – 2258855 (O) Email: rs_bawa@rediffmail.com	6	Gulbarga University, Jnana Ganga, Examination Branch Gulbarga – 585 106 Tel: 08742 – 245450
7	Birla Institute of Technology and Science Vidya Vihar Pilani – 333 031 Tel: 01596 – 242090 (O) 242215 (R)	8	University of North Bengal, Darjeeling (W.B.) - 734 013 Tel: 0353 - 2699283 (O) 2522822 (R) Mobile: 9434715404 Fax : 0353 – 2699254
9	Sri Sathya Sai Institute of Higher Learning (SSSIHL) (Deemed University) Vidya Giri Prasanthinilayam - 515 134 Andhra Pradesh Tel: 08555-287191(O) 287558 (R) Email: coessihl@gmail.com	10	Banasthali Vidyapith Rajasthan – 304 022 Tel: 01438 – 228787/228373 (O) 228323 (R) Email: adityashastri@yahoo.com

11	Sri Sarada College for Women (Autonomous) Fairlands Salem – 636 016 Tel: 0427-2447664, 2447030 (O)	12	A.V.C. College (Autonomous) Mannampandal – 609 305 Mayiladuturai, Tamil Nadu Tel: 04364 – 229225 / 222264(O) Email: avcauto@sancharnet.in
13	Fatima College (Autonomous) Mary Land, Madurai – 625 018 Tamil Nadu Tel: 0452 – 2668016/2669015 (O) Email: srignatius@rediffmail.com		

Abbreviations

CBCS	Choice Based Credit System
EDEP	Electronic Distribution of Examination Papers
CIE	Continuous Internal Evaluation
ESE	End Semester Examination
EAT	English Attainment Test
LAN	Local Area Network
JNTU	Jawaharlal Nehru Technological University
CAP	Central Assessment Programme
EPS	Examination Processing System
CIPL	Core Infosys Private Ltd, Kolhapur
ATKT	Allowed To Keep Term
ICRT	Intellectual Character Recognition Technology
DMC	Detailed Mark Cards
UMC	Unfair Means Cases
UG	Under Graduate
PG	Post Graduate
BITS	Birla Institute of Technology and Science
AIU	Association of Indian Universities

ERU	Examination Reforms Unit
AVC College	Anbanathapuram Vahaia Charities College
CIA	Continuous Internal Assessment
UGC NET	University Grants Commission National Eligibility Test
CGPA	Cumulative Grade Point Average
ACONAR	Advisory Committee on New Academic Regulations
EAMCET	Engineering, Agriculture and Medical Common Entrance Test