

# Best Practices

## BEST PRACTICE I:

### TITLE OF THE PRACTICE

### PROMOTION OF INTERDISCIPLINARY RESEARCH

#### Goal:

To motivate and inculcate research culture amongst students and overcome the compartmentalization of disciplines.

#### Context:

The college aims to transmit information and knowledge through value added research for the benefit of the mankind in particular and the country and world at large. In order to achieve this goal, the college encourages not only postgraduate students but even undergraduate students to take-up inter-disciplinary research. In this context, the college had been holding Manshodhan – Inter SVKM institutes research meet, wherein students across different faculties, viz. arts, law, science, pharmacy, commerce, management, and technology from all institutes under the SVKM banner present their research work. We reinstated the research meet after a gap of 3 years.

#### The Practice:

The DBT Star college scheme gave impetus for inculcation of research culture at the undergraduate level. The students were exposed to additional practicals which honed their analytical reasoning skills. Further, the grant of autonomous status has provided the platform to incorporate research projects and internships in the curriculum, especially in case of students from Arts and Commerce faculty, where research philosophy needs more ingraining. Thus, from the initial years of degree program itself, critical thinking is instilled in the students. With their interests now aroused in research, the students are encouraged to participate in inter-disciplinary research. The students are then inspired to formulate their research proposals for participation in Manshodhan, Aviskar and similar research conventions to exhibit their research skills. With each passing year increasing number of students are participating in research fests, under the guidance of their mentors. This has given an enriched platform to teachers to augment teaching-learning along with generation, extension, and amplification of information, wherein mentors take the advance step to guide the students in presenting their research outcomes. Under the RUSA-2 grant, upgradation of the central instrumentation laboratory facility through purchase of various hi-tech instruments has facilitated research outcomes.

#### Evidence of success:

Over the years, an increased focus on research has been observed at Mithibai College. Both students and faculty have benefitted from the above-mentioned measures and faculty members are now mentoring students in shaping and evolving their innovative ideas through research with promotion of entrepreneurship. Manshodhan is a platform for students from all SVKM institutes to extend a helping hand in acquiring scientific knowledge in disciplines other than their own. In Manshodhan 2019, 230 students participated in the different levels and categories. In addition, this platform has been influential in developing networking and team building with transformation of learners to researchers and moving towards their transformation to entrepreneurship. In future, these teacher-learner partnerships might metamorphize into

sustainable start-ups through research and development. This is evident from the fact that since the last two academic years, Mithibai College students have been awarded the First Prize at the prestigious start-up competition, the Chancellor's Challenge of NMIMS University. Our students are competing and winning against students of professional institutes because of their strong interdisciplinary research-based foundation.

**Problems encountered and resources required:**

Inspiring students to participate in these programmes and research skill augmentation is challenging as the students get short time for accomplishment due to academic commitments, professional courses being pursued, taking care of academic development as well as and personal commitments. However, the enthusiastic faculty strives to motivate students to achieve this goal and RUSA-2 grant has provided substantial funds to upgrade research facilities that will enhance quality research in near future. This will also help groom the overall persona of the students promoting their all-round development.

**BEST PRACTICE II:**

**TITLE OF THE PRACTICE: PIONEERING REFORMS IN EXAMINATION AND EVALUATION**

**Goal:**

Evaluation is an integral part of the learning process. It holds close association with the curriculum and instruction. To move ahead with outcome-based education and achievement of curriculum outcomes, assessment plays a significant role in evaluating the progress and improving the quality of student learning. Thus, the strengthening of this system was envisaged.

**Context:**

The college aims to guide the learners to be global employees / employers. A robust examination and evaluation system is integral to this aim. The college has already been using the student life-cycle module of SAP for all processes from admission to progression to final exit, post completing the degree programs. The pre-examination activities as issue of admit card, generation of bar-codes for answer books, as well as result processing was already digital. To make the examination process digital, the college has taken several measures. We have collaborated with TCS iON for the generation of question papers from a question bank using the content authorizing engine (CAE) rather than the manually pre-set question papers. Further, the answer books have been bar coded to hide the identity of the candidate. To make the process digital, onscreen marking (OSM) has also been initiated, which has made the process of evaluation assessor friendly.

**The Practice:**

Initially, the college identified a few technologically savvy faculty members who were the designated Change Champions. The team from TCSiON trained the Change Champions who, in turn, conducted several intensive sessions to train the rest of the faculty. In case of problems, the Change Champions also took on the role of troubleshooting. Designated question paper creators and reviewers were identified by the HoDs. The role of the question paper creator was to add questions of appropriate marks and suitable difficulty pertaining to the relevant modules in the CAE programme. All paper setters were required to upload a question bank comprising of 1.5 times questions required for generation of three sets of question papers. The reviewers would then critically go through the questions, and make necessary corrections, if any. The reviewer

would also be required to clearly elucidate the question paper pattern and the norms for the computerized generation of the same.

On the day/ a day prior, to/ of the examination, the Examination and Evaluation Committee chairperson, generated the question paper, using the engine. Thus, the probability of every question of appearing in the generated question paper was equal and unique. The question papers were then photocopied in the control room (fitted with CCTV), for distribution. The questions used for the generation of the question papers for a particular set are thereafter locked and not available for generation of the next set of papers. Thus, the probability of questions being repeated in subsequent sets of question papers is totally negated. The evaluation of answer books was facilitated by OSM. This proved to be a blessing since all the faculty were already familiar with the process, having used it during the odd semester examinations, and the declaration of lockdown midway through the examination of the even semesters did not hamper the assessment.

**Evidence of success:**

The college has over the years been evaluating the quality of question papers through a review process by the moderators who are invited. It was overwhelming to note that in the moderators reports on quality of question paper generated via CAE, the quality of the papers was as high as when done manually. The ease of setting of question papers was appreciated by all faculty as with a larger question bank, the process of additional question paper sets preparation for the re-examination was simplified. There was no human intellectual intervention in the generation of the question paper thus ensuring confidentiality.

**Problems encountered and resources required:**

The modality for uploading the question bank as well as template preparation was initially challenging. During the first term examinations for the academic year 2019-20, only the first-year undergraduate program question papers were generated through CAE. As the question bank had to be typed and loaded online, faculties teaching subjects as Chemistry, Mathematics and Statistics, faced problems in typing the questions as the inbuilt TCS-iON software was not very compliant with their requirements. This problem has already been communicated to TCS, so that during the next phase of CAE, requisite arrangements may be made. It is further envisaged, as the next progression, to strengthen the process of question paper generation, via the inclusion of Bloom's taxonomy criteria in the norms.