SUMMARY REPORT ON CASE STUDIES

on
Management Capacity Enhancement Programmes (MCEPs) conducted by IIMs for TEQIP Institutions

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Abbreviations and Acronyms

IIM Indian Institute of Management

RTE Right to Education

MCEP Management Capability Enhancement Programme

TEQIP Technical Education Quality Improvement Programme

NPIU National Project Implementation Unit

MHRD Ministry of Human Resource and Development

SPFU State Project Facilitation Unit

CFIs Centrally funded institutes

CPA Central Project Advisor

JRM Joint Review Mission

HoDs Head of the Department

NSC National Steering Committee

NAAC National Assessment and Accreditation Council

JNTUH Jawaharlal Nehru Technological University, Hyderabad

Executive Summary

The present study intends to comprehensively present the response solicited from the institutions that participated in TEQIP-II management capacity enhancement programme (MCEP). Five IIMs – IIM Indore, IIM Raipur, IIM Udaipur, IIM Trichy and IIM Kozhikode has conducted a study on four technical institutions in terms of inclusion of two private unaided institutions.

Data was collected from these institutes by using the structured Questionnaire. Each IIM team visited each of these institutes for interviewing various stakeholders. All the participanting institutes extended enough support to the visiting team by making data collection process convenient. The interviews were conducted in the following order:

1. Interview with the Director or Principal
2. Interview with the Coordinator of TEQIP and the TEQIP Team
3. Interview with the faculty who had undergone training at IIMs
4. Interview with the faculty who had not undergone training at IIMs
5. Students and Alumni.

The subject contents of MCEPs largely covered the needs of the participants with respect to vision and mission of their institution, understanding self, governance and accountability, organizational structure, team management, time management, conflicts management, curriculum designing, communication skills, accounting and managerial aspects, project management, research and publications, collaborative research, handling students, legal issues, patents etc. The facilities at IIMs were extremely satisfactory. Participants could learn how to effectively use the facilities available in their respective institutions.

The schedule of the program was satisfactory. The participants were fully engaged during the course of the program; and managing the schedule itself was a take-home lesson to many of the participants. Participants have expressed that they were enthused by the organization of the program and increased their interest in attending such Programs. They encouraged their colleagues to attend these Programs as they felt these Programs added so much value to their learning and teaching experience. All participants were happy about the coordination of the program.

Many of the participants who attended the MCEPs as well as those who could not attend the MCEPs felt that such Programs may be conducted during vacations so that they could participate in large number without affecting their teaching and examination schedules. As the institutions run semester Programs taking time off to attend the MCEPs has been a problem.

The participants were happy about the knowledge they gained from the MCEPs. However, few of them expressed that the case studies taught in MCEPs are not relevant to their regular teaching and learning activities. Inclusion of case studies focusing on the academic institutions management, governance, teaching methods etc., would be of great help. The participants were able to use the knowledge and skill gained in the MCEPs in their regular work, mostly at individual level. The members of the faculty of the surveyed institutions expressed that they could see visible changes in some of their colleagues who attended the MCEPs, with respect to their attitude, teaching, research collaboration, team spirit etc. The participants try to adapt to students centric learning approach slowly and the transformation may be possible in about 5 years.

There is no formal mechanism in the institutions to follow up the application of the learning outcomes from the MCEPs by the faculty members who participated in the MCEPs. However, the Principal/Director/Heads of the Departments expressed that there is a visible change in the attitude of the participants with respect to taking managerial/admin responsibilities, undertaking funded projects, teaching methodologies etc. This change in the faculty members who attended the MCEPs were observed by the students as well as peers.

There should be a formal mechanism to ensure the learning from the MCEPs is properly put to use. This would ensure the transformation of the Institutions in accordance with the vision and mission of MHRD in respect of TEQIP. The attendees of the MCEPs expressed that adapting the knowledge and skill gained in the MCEPs in their regular work, especially transforming the teaching and learning to Students' Centric Learning, is difficult due to the rigid rules of the degree granting Universities.

Antecedents of Higher education:

From the research we found ten antecedents for quality in higher education.

Antecedents for Effectiveness of training (Knowledge sharing and implementation at work space)	Institute for Higher Education
Internal Factors	**Weight**
1	**2**
Personal motivation	0.1
Organization process and design	0.05
Institute leadership	0.2
Clear performance evaluation criteria	0.1
Transparent system	0.05
Organization strategic planning	0.1
Financial strength	0.2
Collegial work environment	0.05
Students quality	0.05
Infrastructure	0.1
Total	1.0

Introduction

Technical Education Quality Improvement Programme (TEQIP) is a World Bank sponsored programme under the Ministry of Human Resources Department (MHRD) with an aim to improve the quality of engineering education in India. The phase II of the programme, TEQIP-II, implemented by the National Programme Implementation Unit (NPIU), under the MHRD, included 190 engineering institutions, referred to as TEQIP institutes, across various states in India. As part of TEQIP-II, seven IIMs have conducted Management Capacity Enhancement Programme (MCEP) for the engineering institutions. The training content at the MCEPs were designed to meet the objectives outlined under TEQIP-II and enhance the administrative, managerial and leadership capabilities of the institutional heads, senior faculty and administrators at the TEQIP institutes.

As on December 2015, the IIMs had conducted 68 batches of MCEP covering 1840 participants. At the Joint Review Mission (JRM) conducted by the World Bank in July 2015, an evaluation of the MCEP was proposed. 56 TEQIP institutes, eight institutions for each IIM, were identified by NPIU for evaluation of MCEP. The study was proposed to be conducted in two groups, with four TEQIP institutes in each group. For the purpose of the study, a two-day visit was scheduled to each TEQIP institute by the respective IIMs. During each visit, interviews and discussions were held with the various stakeholders at the institutes viz. Institute Head, Deans, Heads of Department (HoDs), faculty, staff and students, to gather information and views for evaluation of the MCEP. In addition, specific views were also collected through responses by the faculty to a structured questionnaire designed by NPIU.

Technical Education Quality Improvement Programme (TEQIP)

Technical Education Quality Improvement Programme (TEQIP) is a programme of the Government of India, under the Ministry of Human Resource Department (MHRD). Sponsored by the World Bank, TEQIP was aimed to enhance technical education and create dynamic and efficient institutions in India, as outlined through the following objectives,
- Strengthening institutions to produce high quality Engineers for better employability,
- Scaling up Postgraduate Education and demand driven Research & Development and Innovation,
- Establishing Centres of Excellence for focused applicable research,
- Training of faculty for effective Teaching, and
- Enhancing Institutional and System Management effectiveness.

TEQIP was implemented as a national project across technical educational institutions in India. Implemented in two phases, the first phase of TEQIP, referred to as TEQIP-I, involved 127 technical institutions, referred to as TEQIP institutions, in 13 States. TEQIP-I was completed in 2009. The second phase, referred to as TEQIP-II, commenced in 2010 and scheduled to be completed by 2016. TEQIP-II was planned to cover 190 engineering institutes in India. While most of the institutions included government run engineering colleges, some private engineering colleges and universities were also included for implementation of TEQIP objectives. In all, TEQIP-II planned to cover 26 CFIs (Centrally Funded Institutes), 127 State Government funded and Government aided institutes, and 37 private unaided institutions.

Implementation of TEQIP: Organization of NPIU and SPFUs

TEQIP was implemented through the NPIU (National Project Implementation Unit), a project implementation unit under the MHRD (Ministry of Human Resource Development), Government of India. Established in 1990, NPIU was responsible for coordination, facilitation, monitoring of TEQIP1[1].

The organization of NPIU and its structure for TEQIP implementation is at Annexure I. Organized under the MHRD, NPIU was headed by a senior IAS (Indian Administrative Service) officer of the department. A National Steering Committee (NSC) comprising eminent faculty from IITs and IIMs overlooked the planning, monitoring and supervision of activities under TEQIP. A Central Project Advisor (CPA) was appointed as the executive officer of the NPIU, and various consultants supervised various aspects of TEQIP-II, viz. Finance, Academics, IT (Information Technology), and administration. Additionally, a State Project Facilitation Unit (SPFU) was established in each of the states where TEQIP-II was implemented. The SPFU was organized within the education department of each state. Officers of the education department in each state monitored the implementation of TEQIP in the respective states. SPFU state steering committees were formed at the state level for supervision of activities under TEQIP at the engineering institutes for the respective states. Overall, NPIU was responsible to provide guidance to the SPFUs and the institutions in all aspects of the project.

Management Capacity Enhancement Programme (MCEP)

Training needs assessment:

As a part of the MHRD initiative to strengthen administration of higher educational institutions and faculty development, IIM Indore submitted a proposal in consultation with other IIsM for conducting a series of training activities. MHRD concurred with the proposal and the budgetary support. As an

immediate follow up, a two day consultation was held for Administrators of Higher Educational Institutions at IIM Indore during December 14-15, 2012.

IIM Indore invited senior faculty members who are likely to assume administrative responsibilities in the near future as well as Dean (Administration), senior HODs, Registrars, Deputy Registrars, Heads of the Departments of Estate, Engineering, Administration, Transport, Personnel, Legal, Security and other departments who have great potential for assuming administrative responsibilities in the institutes of higher learning.

The consultation programme had a mix of lectures, experience sharing, tutorials, discussions and guest lectures from leading experts in their field including Registrars from leading Institutions and Universities. Eminent administrators and senior faculties from Tata Institute of Social Sciences (TISS), Central University of Rajasthan, Jawaharlal Nehru University (JNU), IIT Delhi, NIT, Faculty from IIM Indore, Director IIM Indore, and Director MHRD shared their experiences of challenges and solutions. They also deliberated the skill sets required by an administrator of Higher Educational Institutions. Every one in the programme was of the view of enhancing the skill set of administrators for growth and taking India in the next orbit through creation, sustenance and inclusive growth.

Sixty two senior faculty / Deans / Registrars / Administrative Officers / Chief Administrative Officers of 26 Higher Educational Institutions (10 private and 16 Government Institutions) under TEQIP took part in the consultation programme.
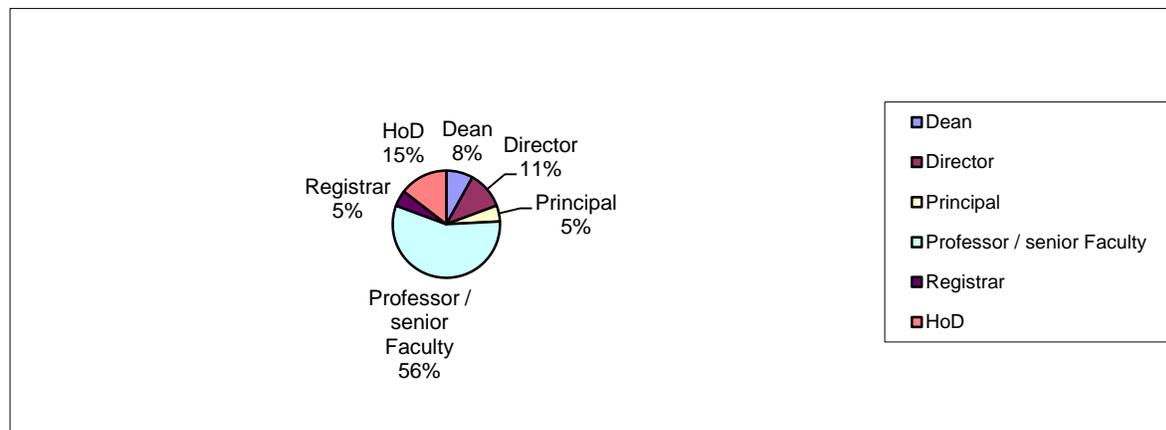
For training of administrators, eleven modules (**Institution Knowledge, People Management, Process Management and Best Management Practices, Information Technology and Automation, Maintenance and Project Management, Legal, Board and Regulatory Institutional matters, Security and Transportation & Logistics Management, Finance and Accounts, Procurement, Public Relations and Website.**) were focused on and topics within each module were deliberated. (Annexure IA)

After the training need assessment, IIM Indore conducted the first 10 days programme for Administrators from January 16-25. 2013.

Rolling to other IIMs :

To facilitate management training under TEQIP, the IIMs (Indian Institutes of Management) were entrusted to impart Management Capacity Enhancement Programmes (MCEP) to the Directors, Deans, Heads of Departments (HoDs), faculty and administrators of the TEQIP institutions. The MCEPs were conducted by seven IIMs namely IIM Indore (IIMI), IIM Kozhikode (IIMK), IIM Trichy (IIMT), IIM Raipur (IIMR) and IIM Udaipur (IIMU). All the 190 institutes under the TEQIP programme, referred to as TEQIP institutions, were included to receive MCEP conducted by the seven IIMs.

The TEQIP institutions were informed by NPIU about the time table of the MCEPs conducted by the IIMs and the institutions could attend the MCEPs conducted at any of the IIMs, as per the convenience and availability of the faculty nominated to attend the MCEP. The process of communicating the time table and schedule of MCEPs conducted at various IIMs to the TEQIP institutions, receiving nominations from the institutions, finalising the list of participants, and communicating the same to the respective IIMs was facilitated by National Programme Implementation Unit (NPIU). As on December 2015, the seven IIMs had conducted the programmes in 68 batches and a total 1840 participants from the TEQIP institutions had received training under the MCEPs.

MCEP at Indian Institute of Management (IIMs)

The design of the MCEPs conducted at other IIMs was approved by MHRD. In particular, the content covered at the training sessions, were common across the IIMs, with some variations. Various topics were covered by IIMs based on building an institute excellence, leadership challenges in educational institutions and enhancing curriculum design and review. All IIMs were having different modules and included various relevant topics for faculty's enhancement. Some of the topics covered at the MCEP at various IIMs, included

a. IIMI – Leadership, General administration ,Technology Management, Right To Education (RTE)

b. IIMK – Enterprise cloud computing (separate module of 3 days)

c. IIMI – Financial management (separate module of 3 days)

d. IIMI and IIMK: Leadership Development Programme (separate module of 3 days)
e. IIMU – Enhancing leadership challenges in institutions and Team building; time management risk management, HRM (13 topics covered in 6 days)

The principle underlying the formulation of the above list was that each topic should directly support one or more of the TEQIP objectives. The coordinator explained to the participants in the very beginning how each topic fits in with the overall objectives of the TEQIP programme.

In addition to faculty of particular IIM, guest faculty from other IIMs Ahmedabad and Bangalore, IIT Kanpur and Academy of HRD were also involved in handling the sessions. The topic contents were designed such that each topic was self contained, and could be sequenced anywhere in the programme, depending on the preference of the faculty. The sessions were designed to be interactive. The instructors encouraged the participants to add to the points that the instructors or other participants made; they could express alternative views, share their experiences, challenge the recommendations under consideration, seek clarifications, or simply think aloud in the class.

The instructors adopted a variety of techniques to handle their classes: a straight forward lecture combined with interaction from participants; case analysis; problem solving; workshops and games; experience sharing and so on. Several instructors required the participants to read and analyze some material prior to their classes; such material was circulated in advance to the participants.

Evaluation of Effectiveness of MCEPs

At the Joint Review Meeting (JRM) conducted annually by the World Bank to assess the TEQIP programme, it was decided to evaluate the effectiveness of the MCEPs, through conduct of case studies. In this regard, NPIU identified a sample of eight TEQIP institutions to be covered by each IIM. Two rounds of case studies covering 56 TEQIP Institutions, (i.e. 8 institutions by each of 5 IIMs) were to be conducted. Each round covered four institutions by each of the IIMs. The TEQIP institutions were selected by NPIU based on performance assessment indicators (i.e. well, average and low performing) and attendance of institutions in MCEPs.

Accordingly, IIM Udaipur conducted an evaluation study at four TEQIP institutes nominated for IIMU.
1. College of Technology and Engineering (CTAE), Udaipur,

2. Malviya National Institute of Technology (NIT), Jaipur,
3. Sant Longowal Institute of Engineering and Technology (SLIET), Sangrur
4. Government Engineering College (GEC), Bhavnagar
5. Institute of Engineering and Technology, Alwar
6. Veermata Jeejabai Technological Institute, Matunga, Mumbai
7. G.H. Raisoni College of Engineering, Nagpur
8. Government Engineering College, Patan

IIM Tiruchirappalli conducted an evaluation study on four TEQIP institutes are;
1. Anurag Engineering College
2. JNTUH College of Engineering
3. JNTUH Institute of Science and Technology
4. Gokaraju Rangaraju Institute of Engineering and Technology
5. Gayathri Vidya Parishad College of Engineering
6. Andhra University College of engineering
7. National Institute of Technology, Trichy
8. Puducherry Engineering College

IIM Indore conducted an evaluation study on four TEQIP institutes are;
1. Maulana Azad National Institute of Technology, Bhopal
2. Kurukshetra University Faculty of Science
3. National Institute of Technology, Kurukshetra
4. Samrat Ashok Technological Institute, Vidisha
5. Shri Govidram Seksaria Institute of Technology and Science
6. Institute of Chemical Technology
7. College of Engineering, Pune
8. Aurora's Scientific Technological and Research

IIM Raipur conducted an evaluation study on four TEQIP institutes nominated are;
1. IIEST, Shibpur
2. National Institute of Technology, Raipur
3. Government Engineering College Raipur
4. Birla Institute of Technology, BIT-Mesra, Ranchi
5. Cambridge Institute of Technology, Ranchi
6. College of Engineering and Technology, Bhubaneshwar
7. JIS College of Engineering, Nadia
8. College of Engineering and Management, Kolaghat

IIM Kozhikode conducted an evaluation study on four TEQIP institutes are;
1. Government Engineering College, Kozhikode
2. College of Engineering, Cherthala, Alappuzha, Kerala
3. Government College of Technology, Coimbatore
4. P.S.G College of Technology, Coimbatore, Tamil Nadu
5. National Institute of Technology, Calicut
6. National Institute of Technology, Warangal
7. Siddaganga Institute of Technology, Tumkur,, Karnataka
8. University Visvesvaraya College of engineering, Bangalore

Based on the views and responses gathered during the visits to the institutes, the following sections present the methodology, observations and findings of the study, and recommendations to improve the effectiveness of MCEP.

Purpose and Objectives

The objective of the MCEPS is to offer a pragmatic approach to the issues surrounding strategic planning in higher education, including an open recognition of some of the idiosyncrasies of the higher education. The training under MCEPs will yield strategic thinking from groups and move TEQIP Institutions in an innovative direction. The participants of TEQIP Institutions will able to learn about the process of strategic planning and developing long term plans of their respective institution. The participants will also try to bench mark their institutes with the best in the World and craft strategies for the same.

The National Project Implementation Unit (NPIU) of Ministry of Human Resource Development, Government of India, during the second phase of TEQIP planned to boost efforts among the TEQIP Institutions to prepare more post-graduate students, to reduce the shortage of qualified faculty, and to produce more R&D in collaboration with industry. The following were the key objectives:

1. Strengthening Institutions to produce high quality Engineers for better employability
2. Scaling-up postgraduate education and demand-driven research and development and innovation.
3. Establishing centers of excellence for focused applicable research
4. Training of faculty for effective teaching
5. Enhancing institutional and system management effectiveness

Methodology

The aim of the study is to scale-up and support ongoing efforts of the Government of India to improve quality of Technical Education and enhance the existing capabilities of the universities education system. The population with which the investigation was carried out is formed by 8 Indian universities which are NAAC affiliated. The sample was 300-400 faculty (those who have gone MCEP training), staff (those who did not undergo MCEP training), students and alumni of the institutes (who participated on a voluntary basis). Each IIM visited TEQUIP institutions were selected randomly within three categories; government, private unaided and CFI's.

Each of the four TEQIP institutes was visited for two days each. The visit to each institute was facilitated through the TEQIP coordinator at the institute. The details of the itinerary followed for the two-day visit. During the two-day visit to the institutes, views about the MCEP were collected from the stakeholders at the institute, including the Head of the Institute, Members of the Board, Deans, HoDs, faculty, staff, and students at the institute. While the views of Head of the institute and members of the Board were collected through interviews, the views of the other stakeholders, viz. Deans, HoDs, faculty, staff and students were collected through Focus Group Discussions. This was done to ensure efficiency of time taken to collect the views, and optimise the time available during the two-day visit to the institute.

Survey method was used by each IIMs. The research team of IIMs decided to use an evaluative scale (Likert type) as a tool to collect the information. Further data collection was collected through Interviews (e.g., open-ended conversations with faculty and staff those who have benefited from MCEP), Archival records (e.g., student responses/ Documents (e.g., Research papers/Books/patents/newspaper articles etc.). to coincide with aims of the investigation, a quantitative investigation of a descriptive manner, as it was expected to find out the truth about the universities faculties specially those who have under gone MCEP training programme. The study has an exploratory nature and can be considered like a non-experimental research.

Data Collection

Each IIM visited TEQIP Institutions which was selected randomly within three categories; Government Institutions, Private Unaided Institutions and CFIs. Data was collected by using questionnaire and the qualitative responses were coded for data analysis to get the relevant result. Six resources were used for collecting data incudes:

- Direct observations (e.g., faculty actions or a physical environment)
- Interviews (e.g., open-ended conversations with faculty who benefited from MCEP)
- Archival records (e.g., student responses/records)

- Documents (e.g., Research papers/Books/patents/newspaper articles etc.)
- Participant-observation (e.g., being identified as an administrator/leader but also filling a real-life role in institution)
- Physical artefacts (e.g., use of computational system to develop products)

Design and Implementation

Questionnaire:

- Faculty (those who have gone through the training) need to be filled by Jr to Sr faculty from various academic areas. Preferably by all those who have gone through the training. Annexure
- Staffs (those who have gone through the training) need to be filled with Jr to Sr staff from various functional areas. Preferably by all those who have gone through the training. Annexure
- Faculty those who have not gone through the training. Annexure
- Staff those who have not gone through the training. Annexure
- Student's questionnaire: to be filled in by students across degree programs and academic years. Five students from each year and degree programs: Annexure
- Alumni Questionnaire : to be filled in by students those who have graduated from your institute in last three years, across degree programs and academic years :Annexure

Interviews:

Each IIM team visited the institutes and interviewed faculties, staff and students.

- Interviews (e.g., open-ended conversations with faculty and staff those who have benefited from MCEP)
- Twenty faculty members
  - 20 staff members
  - 50 students across degree and years
  - Alumnus (Past students)
- Archival records (e.g., student responses/records), analysis of feedback (including teaching and institute infrastructure).
- Documents (e.g., Research papers/Books/patents/newspaper articles etc.) (NAAC report format).
- Also interviewed individually the Director and TEQIP coordinator.

Major Findings and Analysis

Analysis of Interviews with various Stakeholders

During the interview for training impact assessment, the trainees answered various questions pertaining to the MCEP/FDP conducted at various IIMs. In response to the question on 'Best Aspects' of the training, the respondents cited about the modules that they benefited most from. The modules related to 'teaching-learning processes and 'student behaviour & learning style' were highly appreciated. In addition to that, the participants felt that the training sessions on 'Accreditation& Washington Accord,' prepared them for accreditation of various academic programs of their departments. Various other modules related to 'behavioral and communication skills,' 'psychology,' RTI and Legal issues and 'Time Management,'' leadership building', 'risk management', 'developing and design course review' were found useful. Besides the content of these modules, the participants valued planning and execution of the training. Activities involving working in groups were liked. The participants were also encouraged by the active involvement of the Director through the training program.

The participants also discussed how the training affected their academic activities, which were manifested in changes brought about by them in their institute. They felt that the training triggered several changes pertaining to 1.Interaction with student's 2.Personal development 3.Improvement in interpersonal relationship and 4.Improvement in interaction with the Industry. Several participants mentioned they could take classes of longer duration and improve their ability to engage students in the classroom. The trainees informed that their patience level improved and they turned more caring after the training program. They also saw an improvement in their interpersonal relationship with their teams. In addition to these, their interaction with the industry improved and they were well-prepared for accreditation of their programs.

When we probed the impact of the MCEP in specific areas, we received several responses related to pedagogy, motivation to improve subject competence, research competence, etc. The participants were positive about the learning from the program and admitted that teaching learning process improved a lot because of this training. Some of the changes implemented so far in the teaching-learning process were improvement in curriculum contents. Many participants had already made their courses outcome-based and incorporated several assignments involving peer assessment. As a result of the training, most of them saw higher degree of involvement of students in the course. The classes had become more interactive. Many participants also felt that they could manage their time better now.

In terms of improvement of research competence, the participants reported that they could now organize their work better. Many of them saw an improvement in the way they managed data and carried on article writing activities. The biggest learning from the training for many was learning how to select a genuine conference and a journal. Several of them had earlier either attended to or sent their papers to fake conferences and journals. After the training, they knew the parameters for selection of a good journal. As many as nine faculty members from the four institutes we visited in the first phase reported that after the training, they had either published two papers or had made enough headway in their research work.

Regarding a question on 'offering continuing education courses,' the interviewers were apprised of some institutional constraints like 'lack of time' and 'lack of infrastructural support' faced by the faculty. As a result, most participants either felt it was not applicable to them or avoided taking any initiative here. The participants also informed of their interest in developing labs to support their curriculum. There were some who had started utilizing resources in a more efficient manner; the others introduced a few new experiments related to the course content

When the interviewers enquired about consultancy activities carried out by them, most of the participants responded positively. However, most of them were doing it at a small scale and wanted more support for offering consultancy to industries. Some young faculty also responded that in their institution, consultancy activities were not offered by new faculty. About the use of IT enabled tools, the majority responded that they had been using internet resources already and after the program, they adopted a few others for engaging students beyond the classroom. Some faculty had also adopted the learning management system.

In order to understand the holistic impact of the training, the interviewers also interacted with some of the students who had opted for the courses offered after this training by the participants. In response to the question if their knowledge of the subject increased after attending to the course, almost all students responded favorably. Further, more than sixty percent students approached for this activity had been involved in live/research projects by their faculty members. In some cases, the research work by the students had also been published.

The HODs/Institutional Heads of the institutions were also interviewed during this visit. Most of them were enthused by the improvements in academic planning and administration. Some HODs admitted that within their departments, coordination between faculty members improved leading to better management of institutional assignments. Some institution heads gave enough credit to the MCEP training at IIMs as they felt faculty members became more research oriented after attending to this program. Some senior participants also started guiding other colleagues for research activities. There were also some others who had started writing proposals for sponsored

research projects. Additionally, the participants had discussed incorporating IT enabled pedagogy with their colleagues on the department.

The training program also triggered interest in some participants for organizing knowledge sharing events. In some institutions, the participants organized colloquium for the faculty members. There were instances where some participants for the first time came forward to organize national seminars in their institutions. With regard to industry interaction, the immediate development was 'guest lectures by industry experts.' In most cases, participants involved relevant experts in their areas from the industry. The institution heads felt this also led to better prospects of placement. Some participants informed that their institution was also in the process of signing MoUs with a few companies.

Analysis of Questionnaire Survey

Analysis was formed on structured questionnaire developed by NPIU and standardized across all the IIMs (Please find questionnaire in Annexure II to VII). The responses were captured and analysed using spreadsheet function by all the IIMs. The coverage of objectives, topics and delivery of the training was optimally satisfactory to the entire faculty who has trained through the MCEPs. Those who agree on this constitute nearly 96% of the sample. Only 2% disagree on the coverage of the objectives, topics and delivery.

Fig. 1: Coverage of objectives, topics and delivery of the training during MCEP- in all IIMs
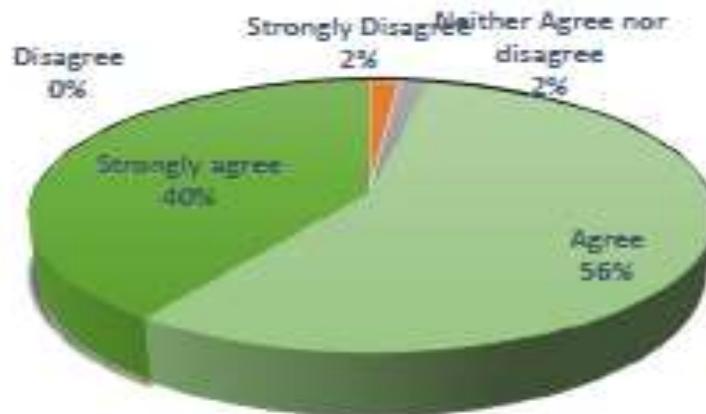
If we view and combined with qualitative responses as well as the interview of the faculty, this finding is reinforcing similar result that all institutes faculty satisfied with the training structure. And thus there was a consistency in the MCEPs being perceived as favorable in terms of objectives, content and delivery.

Fig 2: Useful learning and information during MCEP in all IIMs
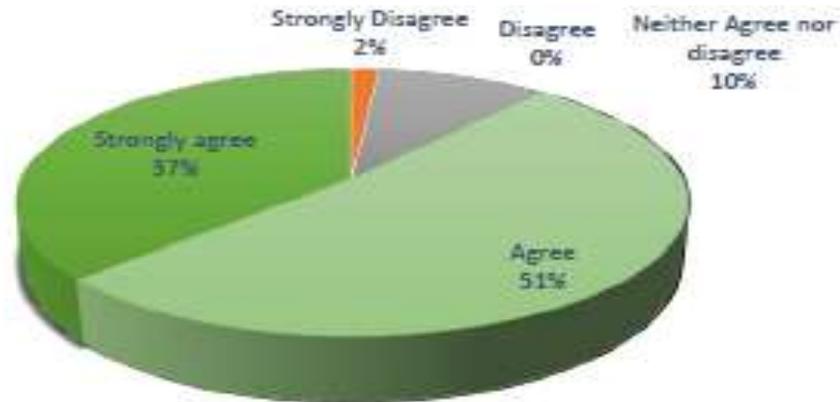
The perception of utility or use of the learning and information gained from the MCEPs has also been highly satisfactory. The agreement on this is held by 88% of the respondents. Around 10% maintain a neutral stance, while only 2% disagree on the utility from the learning and information gained during the MCEPs.

Around 82% of the trained faculty agrees that the training is relevant to the current work and function. About 13% take a neutral stance and a small percentage of 5% disagree that the training seems to be relevant to the current work and function. From the interviews, one point that emerged evident was on coverage on topics like micro economics which were perceived by a few to be irrelevant to their work, sometimes, when it did not involve any administration. That can be a basis to interpret this.

Fig 3: Training experience usefulness to administrative management in all IIMs
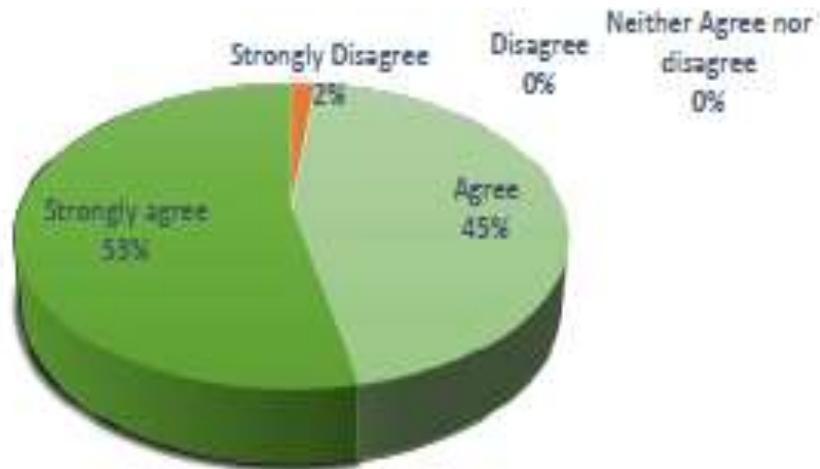
There is an overwhelming agreement of 98% on the training experience being useful to administrative management. This supports some of the qualitative observations as well as the interview data which supports that many faculty felt enthused about taking new responsibilities, were more driven in suggesting ideas as shared by those trained as well as those untrained who had observed them.

Fig 4: Ability to share the training knowledge and skills acquired at MCEPs with other people in institute in all IIMs training
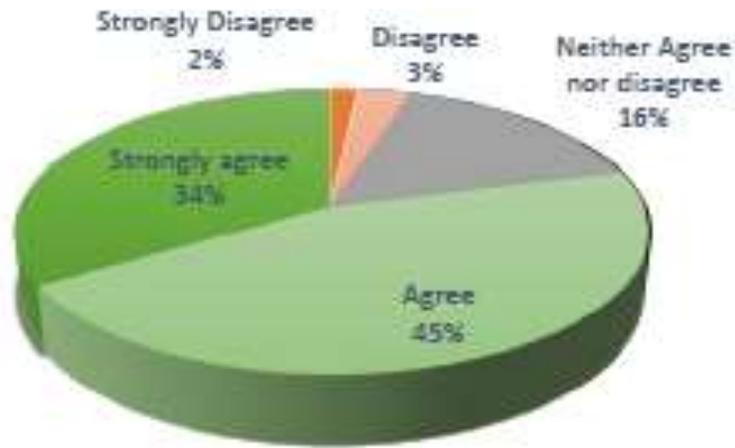
We find that 79% of the trainees agree that they have been able to share the knowledge and skills from the training with the other faculty in the institute. As found from the interviews, some of them have conducted seminars at a formal level, some institutes have designed such a mechanism and sometimes, sharing has happened even informally.

Responses of the Untrained faculty on MCEPS

We also analyse the responses of the faculty members who have not attended any MCEPs. Same methodology and questionnaire was given to the faculties in order to take their views

Fig 5: Aggregate analysis of responses of untrained faculty on being invited, but not being able to attend
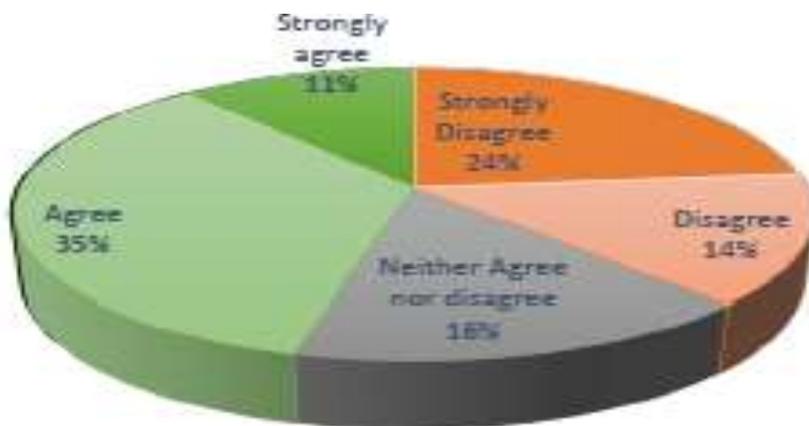
Around 16% of untrained faculty maintains a neutral stance, which means we see a highly motivated set; around 46% have been invited, but have not been able to attend due to prior commitments or other pressing institutional work that could have probably arisen which have come in their way of attending the programme. The percentage of people indicating

disagreement is around 38% which can be interpreted that that they may not have been invited or even known about the programmes. Have the institutes got the required information of training on time and have these been communicated on time? Have the institutes given importance to these training as part of institutional and faculty development? As seen from the interviews, the finding reveal that even among the untrained, there is a lot of enthusiasm to attend these programmes, so it could have been inability to attend due to various reasons like short notice announcements. One suggestion was to give a two month notice to plan for other responsibilities, when faculty wants to attend these programmes.

From the above analysis, it is very clear that MCEPs have been very impactful. This has been brought out by both qualitative interview techniques as well as by the survey methodology. Not only the faculty members who had undergone training had found them to be very useful, also the faculty members who had not undergone the training had perceived the value in the training.

Outcome, Impact and Sustainability

As we believe that the real test of training is in the change of practice and habit. So, it was decided to understand the impact of the training on individuals in terms of their habits and practices. The responses could be summarized under 3 heads, namely:-

i. Changes in personal habits and behavior
ii. Changes in institutional set up
iii. Changes in teaching learning process

Changes in personal behaviour

Top of the draw change was in their inter-personal skills. Many trained faculty members strongly mentioned that their relationship with peers, subordinates and superiors had undergone a major change. They had become less judgmental and more tasks oriented. They could also understand the student psychology and take a more holistic view. Some faculty members had started voluntary counseling for students. They had become more positive and more transparent.

Changes in institutional set up

Next set of impactful change had come about in institutional set up. Many faculty members had taken active interest in creating crisp policy documents. More decisions were taken collectively through a committee system. They had enhanced the efficiency of industry-interaction cells. In

many institutions, faculty involvement in administration was increased significantly. Regular faculty development programmes were arranged by inviting resource persons from all over the country and faculty members were encouraged to attend the same. In short, one singular achievement of the MCEP in institution building was that the faculty members started taking ownership of the institution and started moving a system driven professional organization.

Changes in teaching learning process

As students were a major stake holder in a technical institution, it is natural for faculty members to look for means of enhancing the teaching learning process. The MCEPs were of no exception. There were major take away for the faculty members on teaching learning front. Major initiatives taken by trained faculty members were, ice breaking sessions in the beginning of a course, activity based teaching, team work and small group projects, handling student related problems with empathy, career guidance to students, involvement of industry practioner's, use of information technology, use of e-resources by embedding them in courses etc. Some faculty members started experimenting with flipped class room techniques but with limited success. We can clearly see that there has been a major paradigm shift in teaching learning process in these technical institutions, which was spearheaded by the MCEP trained faculty members.

Lessons Learned and Best Practices

During training various key points were kept in mind while delivering the lectures by the trainers. Various responses regarding the best aspects of training were received by the trainee's. These are headed under five major points:-
- Personality development
- Institution building
- Research
- Teaching learning process
- Training related

Personality development

Though there were major differences in approaches and topics covered by various institutions, there were commonalities on what the participants perceived as Best Aspects of Training. Commonly perceived items on personality development were, development of interpersonal skills, working in teams, networking skills, leadership qualities, motivating others, stress management, discovering self. Almost all of them liked the sessions on communication skills and wanted this to be made a compulsory part of the training programmes.

Institution building

Institution building skills and practices came next on top of the mind awareness. Major topics which were appreciated by the participants were, discipline and conduct rules, motivating non-teaching staff, RTI, financial management, vision and mission for the institutions, strategy implementation, branding of institutions, administrative structures and industry interaction. They also appreciated the sessions on SWOT, PESTEL and sessions on accreditation. They found these sessions are of immediate relevance to them. There was a marked difference in terms of appreciation of the topics between faculty members holding administrative positions and others.

Research

In terms research, many young faculty members were benefitted by the topic publishing in top quality journals from being in India and building a research culture in the institution. As they were very clear that this was a programme for managerial skills, research skills were not the focus of these training programmes.

Teaching learning process

Many IIMs had covered topics on latest developments in teaching learning arena. They had liked the sessions on use of technology, use of case studies, small group projects, participant centered learning and various methods of evaluation. It was heartening to note that many had started implementing these learning in class rooms as the autonomous structure of institutions facilitated this.

Training related

All the respondents were highly impressed by the professional manner in which the programmes had been conducted. First thing which impressed them was the cleanliness, preparation levels of faculty members, efficiency of support services and delivery. What set the IIMs apart was their ability to discipline the participants without being strict and use of technology for enhancing learning effectiveness.

Suggestions

There were lot of suggestions on programme delivery and infrastructural arrangements. Most participants were very happy with the logistical arrangements and wanted the current arrangements to continue. Almost all of them wanted the present method of teaching through case studies should continue. However, they wanted the cases should pertain to technical institutions in India. Some of the participants were ready to extent support to IIMs to develop case studies of their own institutions. They wanted follow up programmes and follow up

meetings between trainers and trainees, after the programmes were over. They also believed that while more time is required to cover all the topics, the duration could not be increased due to various constraints. Hence, a theme oriented training may be conceived. Some faculty members wanted sessions to be combined with regular MBA courses. There was a suggestion from one institution that IIMs could design a regular 3 month full time certificate course or interested faculty members may be permitted to attend some courses. There was a proposal from JNTUH that IIMs can tie up with Academic Staff College of the University and run joint programmes at Hyderabad.

Some faculty members wanted some role models to be show cased. A minority of the participants wanted some kind of evaluation/ grading at the end of the programme so that participants can benchmark themselves against expectation. Some participants suggested that there should be more field visits to industry and other top institutions. It was also noticed that in some IIMs the class size was a little on the higher side. They wanted the class size should be kept at a manageable level.

Recommendations

1. NPIU should continue with MCEPs.

2. In addition to MCEPs spread across the year, more MCEPs may be planned during vacations of the Institutions. This may be possible by grouping the Institutions in to three categories, viz., NITs, Autonomous and Non-Autonomous. Institutions which are relatively new, say under ten years of existence may be grouped as a separate group.

3. NPIU may take measures to see that information about the MCEPs is communicated well among all faculty members of the institutions.

4. NPIU may take measures to see that a formal mechanism to follow up of sharing and implementing the knowledge and skill gained in the MCEPs in their regular work since the training by the attendees.

5. NPIU may take measures to increase the academic autonomy in the participating institutions by lessening the difficulty faced by the faculty members due to the rigid rules of the degree granting Universities.

6. Participating IIMs may try to follow a uniform design and structure of the MCEPs so that the faculty members trained by the IIMs are focused towards common goals.

7. NPIU may initiate a case writing workshop for the faculty members of the TEQIP Institutions to be used in classes and also to record the problems.

8. NPIU may initiate a mechanism to compile the best practices in each institution and make them available to all other institutions through a common portal.

9. NPIU may consider the participation of homogenous group faculty members in each of the MCEPs. For example, experience, government and private etc. This would facilitate a better

group learning and common take away. This would increase the engagement of the participants more seriously.

10. Participants should be encouraged more by means of activities embedded within MCEPs to transfer learning from the program within their institution. The Head of Institutions should be influenced for providing opportunities of knowledge sharing post-MCEP participation.

11. Increase funding for faculty development programs.

Other Points:

All the faculties mentioned that for successful training learning implementation following issues should be implemented.

A) Delegation of power with responsibility and accountability in education system.

B) State Govt. for state institutions and MHRD for central institutes should keep a check on setting of short term and long term goals and their effective implementation. Strategic Planning for each institute should be made compulsory.

C) Faculty recruitment should be done on national level like of IAS and IPS. There should be similar level training in academics.

D) MHRD must help in interaction with industries and leading institutes, accountability and faculty exchange programme with foreign universities. TEQUIP should take IIsM on board.

E) Channel for utilization of funds and it should be made more systematic and shortened.

F) Accountability of the dealing hand whether teacher or non-teaching should be pin-pointed. G) MHRD must provide monetary incentives to other state institutes for good teacher, researchers, and authors of good books.

H) Director of the institute should have full autonomy in recruitment of faculty on contract for new subjects etc.

I) Faculty development fund should be given annually to individual faculty for his academic improvement like attending conferences, seminar.

Training batches should be institute wise (category) like CFI's Central Govt Institutes, State Institutes, State Funded, private Institutes . This would help in sharing information with same legal setup of institutes. IIMs can do focused research on these institutes and deliver training program as the issues specially in personnel management, finance and legal issues are different in different type of category of institutes.

Conclusion

Overall, the participants were highly satisfied with the MCEP training programmes held at IIMs. Participants believed that MCEPs objectives, contents, expectations and delivery were excellent and they learned skills which are relevant to their current work and future responsibilities. Training programmes also changed their perception, attitude and behavior positively and significantly. The academic and administrative management of the training participants improved positively after attending to MCEPs. We also observed that the participants scored low on the parameter 'transfer and sharing of knowledge and learning of training programmes with colleagues and others at workplace.' This is an area of concern and the participants should be encouraged more to share and disseminate the MCEPs learning with colleagues and others at workplace.

Responses collected from the other stakeholders such as Directors, Dean, HoDs and faculty colleagues corroborate the above findings. The head of the departments or the institution heads of the institutions saw a positive change in the academic and administrative activities performed by these participants. The Institution heads noticed positive changes especially with respect to interpersonal relationship, team work and time management. Most of them shared that the improvement in the participants were discernible and resulted in more engaging student activities.

Reference

1. Technical Education Quality Improvement Programme of Government of India, Project Implementation Plan, prepared for Government of India, by National Project Implementation Unit, August 2002.

2. NPIU Website: http://www.npiu.nic.in

3. MHRD Website: http://mhrd.gov.in

Annexure-I

Organisation of NPIU: Monitoring and review structure for TEQIP implementation

LEVEL

MHRD
Supervision by Senior IAS Officer, Govt. of India
National Steering Committee

NPIU
Supervision by CPA, Central Project Advisor

Central

SPFU
Andhra Pradesh

SPFU
Haryana

....

SPFU
.... Etc.

State

(State
Steering
Committees
in each
state)

Institute 1

Institute 2

Institute..etc.

TEQIP Cell

Institutional

Finance

Academics

Procurement

Departmental
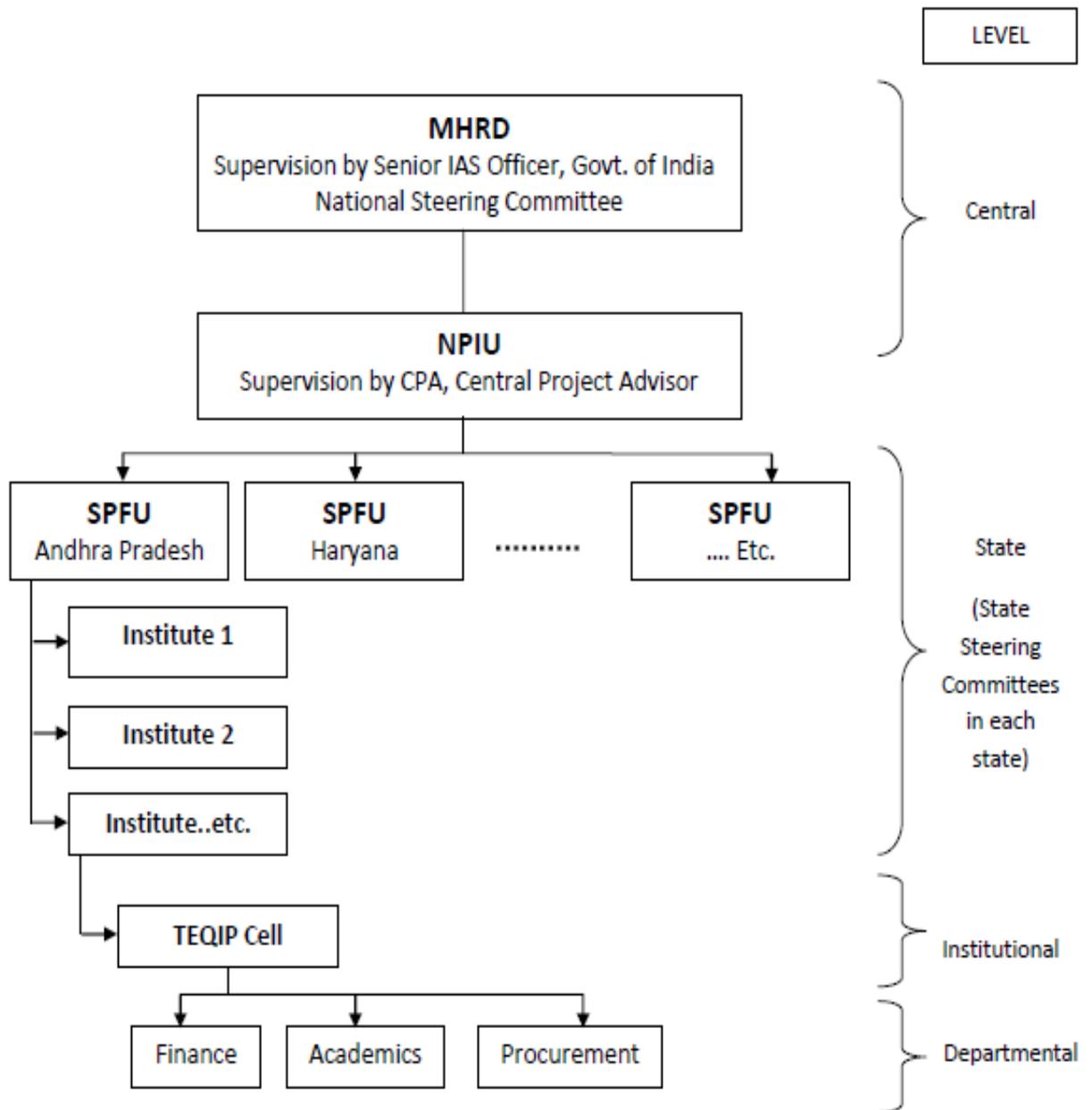
Module wise topics for MCEPs In Annexure I A

Module name	Topics to be covered in the module
Institution Knowledge	• An ability to appreciate the core subject of the Institution (management / engineering / architect / medical / pharma etc.) • Interfacing with academicians to facilitate smooth delivery of academic programmes • Expertise and familiarity on preparing administrative notes
People Management	• Ability to assemble and manage a team of non-teaching staff • Team building • People Skills • Delivering messages • Recruit, retain and incentivize talent • Ensuring student discipline and their good conduct on campus • Leadership
Process Management and Best Management Practices	• File noting and File management • Office Management Procedure • ISO 9000 • Creating systems and processes for day-to-day efficient

	management
Information Technology and Automation	• Automating processes • Implementing state of art information technology solutions • Develop and implement a robust campus maintenance system
Maintenance and Project Management	• Estate management, landscaping and architectural refinements etc. • Creation, upkeep and maintenance of utilities (water, power, sanitation and waste management) • Planning and execution to respond to medical emergency, preventive measures related to health care • Project management , Ecological management • House Keeping • Management of Guest Houses, Student Hostels and Residential area • Create and manage medical facilities on the campus • Manage appropriate and adequate sports facilities
Legal	• Manage disciplinary proceedings • Manage legal affairs • RTI and other related Governance and transparency matters • CVO

Board and Regulatory Institutional matters	• Manage Board related matters • Interfacing with local Government authorities • Manage and respond to issues related to compliances
Security and Transportation & Logistics Management	• Safety of students and campus community • Transport and Logistics management
Procurement	• Contract management • Tendering • Stores and Purchase management • Managing catering services and recreational facilities
Finance and Accounts	• Overseeing or supporting the finance function • Budgeting, investment decision • GFR related issues • Preparation of Annual Reports and other responses to MHRD
Public Relations and Website	• Managing Public Relations network of the Institute • Interfacing with the Press and electronic media • Website (Content, Upgrade and Safety)

Annexure- II

Questionnaire for Evaluation of Management Capacity Enhancement Programmes (MCEPs)

For

FACULTY (Those who have undergone MCEP training)

Name of Participant	:	
Designation & Education Qualification	:	
Age	:	
Name of IIMs where participated	:	
Name of Institution	:	
Date of Training event	:	Month: Year:

IMPORTANT INSTRUCTIONS

In this questionnaire, the term 'training' refers to learning experiences provided by the IIMs (viz. IIM Bangalore, IIM Indore, IIM Kozhikode, IIM Lucknow (Noida Campus), IIM Raipur, IIM Trichy and IIM Udaipur) during sponsored Management Capacity Enhancement Programmes (MCEPs). To evaluate the MECPs being held at IIMs, Your valuable Feedbacks are being taken so that the quality of MCEPs could be analyzed. Therefore, provide one response to each item on the form. Complete using a black or blue pen. Please tick your level of agreement the statements listed below.

We will be using the data in the form. Your name will not be divulged .The responses are in confidence.

SN	Response Questions	1	2	3	4	5
1	The objectives, topic covered, and delivery of the training during MCEP were insightful					
2	The learned or acquired information during MCEP was new and useful to you					
3	This training was relevant to your current work or function					
4	The training providers (IIMs) clearly explained what was expected from the training event.					
5	The Training had an appropriate mix of theory and practice.					
6	The training experience is helpful to administrative Management					
7	You have actively used the knowledge and skills you acquired at MCEP in your current work or function					
8	You have been able to share the training knowledge and skills that you acquired at MCEPs with other people in your institution					
9	You think other people in my institution should attend MCEP					
10	What is your overall rating of the MCEP?					
Note: 1= Strongly Disagree, 2= Disagree, 3= Neither agree nor Disagree, 4= Agree, 5= Strongly agree						

For S. No. 7, 8, if you answer is less than 3 than please give reasons for the same

Questionnaire for Evaluation of Management Capacity Enhancement Programmes (MCEPs)

SUBJECTIVE QUESTIONS

Please answer the following questions

1	:	What were the BEST ASPECTS of the Training?
2	:	Three changes in your practice as a result of this training that you are using in your institute?
3	:	Three suggestions for enhancing effectiveness of training?

4	:	What would you advice with respect to policy changes (state/central/ MHRD) with respect to developing your institute to an effective (Teaching), innovative (Teaching & Research). Benchmarked institute (academic administration).

Annexure-III

Questionnaire for Evaluation of Management Capacity Enhancement Programmes (MCEPs)

For

STAFF (Those who have undergone MCEP Training)

Name of Participant	:	
Designation & Education Qualification	:	
Age	:	
Name of IIMs where participated	:	
Name of Institution	:	
Date of Training event	:	Month: Year:

IMPORTANT INSTRUCTIONS

In this questionnaire, the term 'training' refers to learning experiences provided by the IIMs (viz. IIM Bangalore, IIM Indore, IIM Kozhikode, IIM Lucknow (Noida Campus), IIM Raipur, IIM Trichy and IIM Udipur) during sponsored Management Capacity Enhancement Programmes (MCEPs). To evaluate the MECPs being held at IIMs, Your valuable Feedbacks are being taken so that the quality of MCEPs could

be analyzed. Therefore, provide one response to each item on the form. Complete using a black or blue pen. Please tick your level of agreement the statements listed below.

We will be using the data in the form. Your name will not be divulged .The responses are in confidence.

SN	Response Questions	1	2	3	4	5
1	The objectives, topic covered, and delivery of the training during MCEP were insightful					
2	The learned or acquired information during MCEP was new and useful to you					
3	This training was relevant to your current work or function					
4	The training providers (IIMs) clearly explained what was expected from the training event.					
5	The Training had an appropriate mix of theory and practice.					
6	The training experience is helpful to administrative Management					
7	You have actively used the knowledge and skills you acquired at MCEP in your current work or function					
8	You have been able to share the training knowledge and skills that you acquired at MCEPs with other people in your institution					
9	You think other people in my institution should attend MCEP					
10	What is your overall rating of the MCEP?					
Note: 1= Strongly Disagree, 2= Disagree, 3= Neither agree nor Disagree, 4= Agree, 5= Strongly agree						

For S. No. 7, 8, if your answer in less than 3, then please give reasons for the same.

Questionnaire for Evaluation of Management Capacity Enhancement Programmes (MCEPs)

SUBJECTIVE QUESTIONS

Please answer the following questions

1	:	What were the BEST ASPECTS of the Training?

2	:	Three changes in your practice as a result of this training that you are using in your institute?
3	:	Three suggestions for enhancing effectiveness of training?
4	:	What would you advice with respect to policy changes (state/central/ MHRD) with respect to developing your institute to an effective (Teaching), innovative (Teaching & Research). Benchmarked institute (academic administration).

Annexure-IV

Questionnaire for Evaluation of Management Capacity Enhancement Programmes (MCEPs)

For

FACULTY (those who have NOT undergone MCEP Training)

Name of Participant	:	
Designation and Qualification	:	
Age	:	
Name of Institution	:	

IMPORTANT INSTRUCTIONS

To evaluate the MCEPs being held at IIMs, your valuable feedbacks are being taken. An important objective of the training is to ensure that participants are able to use their new skills and knowledge when they return for their institutions. As some people from your institution have attended, you are able to say whether this has happened. Therefore, provide one response to each item on the form. Complete using a black or blue pen, please tick your level of agreement the statements listed below. Leave the box blank if the statement does not apply

We will be using the data in the form. Your name will not be divulged .The responses are in confidence.

SN	Items					
1	You were invited to participant in MCEP but could not attend (Yes/NO)					
2	You have not been invited to participate in MCEP but you would like to do so (Yes/No)					
3	You are aware of faculty staff who have undergone MCEP at IIMs (Yes/No)					
		1	2	3	4	5
4	Trained faculty use the skills and knowledge gained as a result of attending the training program					
5	Training faculty have been able to transfer the skills and knowledge gained to other faculty in my institute					
6	My institute work environment encouraged faculty that have undergone MCEP training programme to apply the learnt knowledge and skills back at their job environment					

Note: 1= Strongly Disagree, 2= Disagree, 3= neither agree nor Disagree, 4= Agree, 5= strongly agree

Q. 1:- If you answer to question No.-1, is yes, than give reasons

Q. 2:- If you answer to Q. No. 4, 5, 6 are less than 3 then please give reasons

Annexure-V

Questionnaire for Evaluation of Management Capacity Enhancement Programmes (MCEPs)

For

STAFF (Those who did NOT Undergo MCEP Training)

Name of Participant	:	
Designation and Qualification	:	
Age	:	
Name of Institution	:	

IMPORTANT INSTRUCTIONS

To evaluate the MCEPs being held at IIMs, your valuable feedbacks are being taken. An important objective of the training is to ensure that participants are able to use their new skills and knowledge when they return for their institutions. As some people from your institution have attended, you are able to say whether this has happened. Therefore, provide one response to each item on the form. Complete using a black or blue pen, please tick your level of agreement the statements listed below. Leave the box blank if the statement does not apply

We will be using the data in the form. Your name will not be divulged .The responses are in confidence.

SN	Items					
1	You were invited to participant in MCEP but could not attend (Yes/NO)					
2	You have not been invited to participate in MCEP but you would like to do so (Yes/No)					
3	You are aware of staff who have undergone MCEP at IIMs (Yes/No)					
		1	2	3	4	5
4	Trained Staff use the skills and knowledge gained as a result of					

	attending the training program					
5	Training staff have been able to transfer the skills and knowledge gained to other faculty in my institute					
6	My institute work environment encouraged staff that have undergone MCEP training programme to apply the learnt knowledge and skills back at their job environment					

Note: 1= Strongly Disagree, 2= Disagree, 3= neither agree nor Disagree, 4= Agree, 5= Strongly agree

Q. 1:- If you answer to question No.-1, is yes, than give reasons

Q. 2:- If you answer to Q. No. 4, 5, 6 are less than 3 than please give reasons.

Annexure-VI

Questionnaire for Evaluation of Management Capacity Enhancement Programmes (MCEPs)

For

STUDENT

Name of the student	:	
Degree attended	:	
Age	:	
Name of Institution	:	

IMPORTANT INSTRUCTIONS

MHRD /World Bank are trying to upgrade the competencies of faculty/staff of Indian Higher Education Institutes. Please provide your suggestions to help us develop excellent process and policies for building competitiveness in higher education institutes.

We will be using the data in the form. Your name will not be divulged .The responses are in confidence

QUESTIONS

Please answer the following questions

1	:	Q1: What is the best thing you like in your institute (faculty/ infrastructure / pedagogy / labs /etc.)? Please elaborate
2	:	Are you aware of TEQUIP / MCEP program? If yes, then please elaborate.
3	:	Have you seen any innovation in teaching/course design / experiential learning at the institute?

4		What are your suggestions to make your institute a world class institute?

Annexure-VII

Questionnaire for Evaluation of Management Capacity Enhancement Programmes (MCEPs)

For

AlUMNI

Name of Alumni	:	
Degree completed	:	
Age	:	
Name of Institution	:	
Presently working at /or studying at		

IMPORTANT INSTRUCTIONS

MHRD /World Bank are trying to upgrade the competencies of faculty/staff of Indian Higher Education Institutes. Please provide your suggestions to help us develop excellent process and policies for building competitiveness in higher education institutes.

QUESTIONS

Please answer the following questions

1	:	What is the best thing you like in your institute? Please elaborate
2	:	What policy issues you would like MHRD to develop so that your institute can grow and be one of the top institute in India
3	:	Are you aware of TEQUIP / MCEP program? If yes, then please elaborate.

4		What are your suggestions to make your institute a world class institute?