

Best Practice: 1

Title of the Practice: Institutional Process Primer

Objectives of the Practice:

The institute was keen to establish standardized processes which could be adopted across all academic and administrative purposes. The process defined also includes the framework of processes as prescribed by accrediting and statutory bodies. Team of academic administration heads and faculty members is formed to draft the process. It was reviewed regularly and was modified based on the feedback received from the stakeholders.

The key objectives are listed below:

- To adopt Outcome-Based Education (OBE) approach.
- To build a student-centered instruction model that measures the performance of students through outcomes.
- To define the processes for direct and indirect assessment.
- To facilitate effective Teaching-learning process.
- To achieve academic excellence meeting global standards.

The Context:

The process primer was designed since there was a need for a process that assures continuous quality improvement and to promote excellence in academics. The need was felt during the accreditation process. It was challenging to aggregate the data from various activities conducted across the departments. Standardized reports were not available. The department also found it challenging to assess the attainment from PO and PSO perspective. The institute felt the need to establish standardized processes in academic and administrative activities. Academic activities included teaching learning process, assessment process and administrative activities, the process of organizing various events including proposal to organize the event, conduct of the event feedback and impact analysis of the event. The intention was to set up a system that helps bringing in standardized processes across all departments. The processes set through primer are also expected to help design paperless system by developing application software that would help automate the processes.

The Practice:

The uniqueness of Institutional Process Primer is documentation of processes followed in higher education institute in academic and administrative activities. A team comprising of academic administrative heads and faculty members was formed. The team identified set of activities which are commonly followed across the departments. The activities included right from strategic planning till the tactics level of implementing the strategies. The sub processes for each activity was identified. In addition to establishing standardized processes, the team also focused on implementing outcome-based education (OBE) approach in most of the activities across all departments. Therefore, PO and PSO mapping was done for each course. The institute wanted to ensure that the activities conducted are in alignment with the programme outcomes. This helped in streamlining the activities which will really help and augment the efforts in teaching learning. A few of the unique approaches in the process primer is listed below:

- Assessment of Institution's compliance with accreditation standards.
- Collection of data to attain program outcomes.
- Attainment of Quality assurance.
- Assuring confidence and quality to the stakeholders.
- Setting up guidelines and standards to normalize the process across the departments.

Once the draft process primer was in place. It was reviewed by Principal and HoD's. The processes were parallelly being implemented in all departments. The feedback received during the partial implementation was considered and accordingly the process was modified. Since the institute has multiple programmes in UG and PG, a sample of each academic and administrative activity was considered and was documented in the process primer. The document was a common reference point for planning and conducting all academic and administrative activities.

Once the process document was finalized, it was shared with all departments. An orientation session for all departments was conducted to create awareness amongst all faculty members and help them understand the processes defined in the document. The head of the departments constantly monitored the team to ensure that the process defined in process primer is followed. It was challenging for all faculty members to comprehend the processes defined although they were following earlier a similar practice, but working in a defined framework was psychological factor that made them feel challenging to follow the process.

During the academic audit at department level, the auditing team verified the implementation of Process Primer in all departments. In case if there are any issues/challenges reported by the department, then the draft committee took the cognizance of the same and revised the process wherever it was required.

Evidence of Success: The main intention of process primer was to establish standardized processes and implement OBE approach at the institute. One of the key focus areas was teaching and learning process. The format of lesson plan was defined and accordingly it was followed by all faculty members. This ensured that effective monitoring mechanism of academic sessions all through the semester. A few of the areas of success is mentioned below:

Assessment reports of tests and assignments:

- Direct and Indirect assessment process was standardized and the performance of the students was compared with the set target of performance. If there is any deviation from the set target, necessary actions will be initiated.

Assessment reports of Lab sessions and test:

- A standard rubric was defined for all assessments and accordingly it was followed across all departments.

Feedback from alumni, Industry, and other stakeholders:

- A structured feedback process was defined and was collected by departments. Based on the feedback necessary corrective measures were established.

Self-assessment reports, based on instructions and guidelines for the conduction of workshops and training programs:

- This was provided to establish standardized processes for administrative activities. Each activity was mapped to POs and impact analysis was conducted. This ensured that all programmes organized helped achieve POs.



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Problems Encountered and Resources Required:

One of the significant constraints was faced during the implementation phase. The processes were not accepted immediately as it was perceived as time-consuming. This was a natural phenomenon and was expected as there is a general tendency to resist a change in the process.

One of the methods adopted was to informally discuss with all stakeholders involved and sensitize them with the benefits from the following primer. These processes were helpful during the accreditation process to prepare necessary documents.

An intellectual resource is a leading resource required for creating the Process primer, suppose any institution wants to adopt the Primer. In that case, the institute can develop a team of at least five members with a combination of highly experienced and new entrants who can create adapted versions of Primer suiting the institute's requirements. One of the main resource required for this practices is Intellectual resource and willingness of key stakeholders to implement the process primer.



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Best Practice:2

Title of the Practice : Strategic Development of Department (STRADD)

Objectives of the Practice:

Every department has intellectual resources through which the department can drive competitive advantage. In addition to the core activity of teaching & learning, four focus areas were identified: Learning and Development, Research and Development, Ecosystem for entrepreneurship, and Internationalization. The key objectives of STRADD is mentioned below:

- To design and deliver employability enhancement skills through learning and development intervention.
- To develop systems and processes in R&D with an emphasis on developing products/services to solve real-time problems at the grass-roots level in the society.
- To establish an ecosystem for entrepreneurs to launch startups on campus.
- To establish internationalization and its related activities and initiatives.

The Context Learning and Development(L&D):

One of the challenges during the recruitment process is the intellectual readiness of students to get through the initial screening in technical and non-technical areas. Therefore, to help and support students in performing well in the recruitment process, L&D designed and delivered employability enhancement courses.

Research and Development:

R&D is emerging as a critical success factor in engineering education. Therefore, R&D was strengthened to support faculty and students in developing products to solve elementary-level problems and explore research opportunities in emerging technologies. This process will also help connect with the industry.

Ecosystem for entrepreneurs:

India is the hub of startups, and Bangalore city is one of the significant contributors. To help and facilitate entrepreneurial ideas by setting up intellectual and infrastructure resources on campus. This process will also help connect with the industry.

Internationalization:

With the NEP being introduced, the institution should complete globally. A few activities were initiated in this direction, such as Global case study challenge, the Society for Women Engineers, Collaborative student projects with global partners, etc.

The Practice:

Every education institution has intellectual resources which can add more value to the department apart from the teaching process. The resources can help connect strongly with the industry at a global level through consultancy projects, produce employable graduates and help validate entrepreneurial ideas.

STRADD took a good shape during pandemic time and lockdown time. The thought process of STRADD were refined and framework was designed by the strategic team consisting of CEO, Principal, representation from head of the departments and consultant of organisational development.

The institute-level strategic plan was designed through a vision document till 2050. Accordingly, vision 2025 was defined. This was shared with all heads of the department.

There was virtual meeting with each of the department to explain the whole STRADD process. This was done in two week's time. The meetings had to be conducted online due to pandemic situation.

The heads of the department shared Vision 2025 document with all faculty members. As member of the strategic team made a detailed presentation to all faculty members and explained the core focus areas of STRADD namely Learning and Development, Research and Development, Ecosystem for entrepreneurship, and Internationalisation in addition to teaching and learning which is core competency of the institute.

A team within the department was formed to brainstorm each of the focus areas and explore various activities through which the department can contribute. This approach is unique in many ways as most of the education institutes mainly focus on teaching and learning process alone, however Cambridge Institute of Technology wanted to explore various avenue through which the intellectual capital available on the campus could be used in addition to the teaching and learning process.

Learning and Development area ensured that the employability skills of the students is improved and it helps in filling industry academic gap. Research and Development area is one of the emerging focus areas in education institutions. The purpose of this area was to focus on publications, patents and projects. The ecosystem for entrepreneurship was identified to provide a platform for faculty and staff members to share their business ideas and establish entrepreneurial ventures. The departments had to identify the resources that they possessed to establish this ecosystem at department level or support at institutional level. As a part of internationalisation focus areas, the department had to identify various activities such as collaborative research projects, publications, student and faculty exchange with education institutions across the globe.

The department prepared STRADD based on the multiple brainstorming sessions at the department level and shared it with strategic team. The departments started implementing STRADD as per the plan and was monitored by strategic team.

Evidence of Success:

Learning and Development(L&D): Nearly 40 courses were identified, the faculty members developed content, and the respective faculty members conducted a few courses. L&D plan was prepared and was implemented by including L&D sessions as a part of the regular time-table.

Research and Development: Department level Special Interest Group (SIG) was created, and the members of SIG started focussing on a specific problem identified and designed possible solutions to the problem identified. In addition, thrust research areas have been identified and shared with all departments. The R&D team at the department level is working on the thrust areas and is applying for grants from various agencies in India. In the last two years, 12 patents have been filed as part of this initiative.

Ecosystem for entrepreneurs: Twelve startups have set up their offices on the campus. The incubator facilitates the startups with all required support systems. The startups focus on sustainability-based products. The institute partners with Atal Incubation Center to establish a better system and process to set up an ecosystem for entrepreneurs.

Internationalization: As a part of internationalization, we work with universities abroad. A few of the events completed are Global Case Study Challenge(GCSC)- CIT was the first institute from India to participate in GCSC. Nearly 600 students from 12 universities across the globe participated in the event. CIT students were part of the global teams and participated in 10 week-long activities of GCSC. In addition, the institute is working with two universities where students are collaborating with their counterparts abroad on project-based learning activities.

Problems Encountered and Resources:

Required STRADD was considered as one of the additional activities at the department level. In contrast, it was a process to streamline the activities and align all the activities towards one common goal. There was resistance across all levels to implement this, which was expected. STRADD also made the departments think from an outside-in perspective, which was a bit challenging.

Being an engineering institute, it was challenging for faculty members to think and deliberate beyond teaching & learning process. This was addressed by having informal interaction with all the faculty members who were involved in the process. CSE and MBA department STRADD were created initially which was



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used as a reference point for all other departments. This also helped the faculty members to articulate their thought process in alignment with the core objective of STRADD to expand the contributions and activities beyond teaching and learning.

The major resource required is intellectual resources which generally is available in most of the education institutions. In addition, if there is a consultant with an expertise in change management or organizational development helps in streamlining the implementation process.



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