Objectives of Orientation Program

An Overview of the Day

Outcomes as an Objective of Teaching

- As teachers, we implicitly know why we are teaching, and with what objective.

- Broadly we teach with a view to create understanding and insights.

- In real life, the insight must lead to empowerment: through knowledge, skills, attitude and behavior: Outcomes.

- Implicitly we know this, but rarely stop to check whether that is really happening.

- Outcomes Based Education: Essentially teaching with this awareness and associated effort.

Accreditation: A simple definition

- **It is a Process by which**:

  The Institution being looked at is given a SEAL of approval by stakeholders in its activity - as meeting their **expectations.**

- (Stakeholders: Students, Govt., Industry, Faculty,…)

Beyond Certification

- *However, its aim is not mere certification.*

- *It is a process which encourages continuous look at how you teach, what is its impact, and how to achieve the set objectives better.*

- *It should lead to a Continuous Improvement System.*

Top-Level View

- NBA accredits about 1500 Tier 1 programs and a large number of Tier 2 programs in the country.

- Currently, NBA uses services of nearly 400 volunteers.

- Projected need: Much larger; More importantly: People who understand issues of quality and accreditation much better!

- *Quality and consistency of accreditation:* derives from the NBA volunteers.

Today's Program

- Aimed as an Orientation Program for our Esteemed Volunteers: Experienced and New Volunteers.

- For the Experienced Volunteers: An opportunity to understand the new directions being pursued in Accreditation at NBA.

- For the New Volunteers: Brief them about the basic processes of accreditation.

- Focus Areas:

  Outcome Based Accreditation.

  Understanding the New SARs for Engineering (Tier 1 and Tier 2 Institutions).

Today's Program

- Accreditation: No Rocket Science.

- Most of what we have to say: common sense.

- However, some familiarity required with basic systems and tools for accreditation.

- Providing that familiarity is the essential objective today.

- Experience as a Professional and in Accreditation: Key to being an effective PEV and Team Chair.

Our Resource Team

- Surendra Prasad, Chairman, NBA

- Dr. Anil Nassa, Member Secretary, NBA

- Professor S.C.Sahasrabudhe, Former Director, DAIICT, Gandhinagar.

- Dr. Ranganath, BMS College of Engineering, Bengaluru

- Dr. Avichal Kapoor, Raisoni Group of Institutions.

Presentation Outline

- In Two Parts.

- First Part:

  Accreditation as a tool for an institution towards continuous improvement of education

  : Closing the Loop.

- Second Part:

  Role and Responsibilities of the Visiting Team Chair and PEV.

Closing the Loop

: Accreditation as a Tool for Continuous Improvement of Program Outcomes

Focus on Program Outcomes

- Criterion 7 is concerned with continuous improvement in Student or Program Outcomes (Criterion 3).

- Note: Assessment of PEO's (Criterion 1) not easy.

- However PEO's important and relevant to vision and mission of the program and the institution, and the design of the program.

- Not to be discussed in this discourse.

- Program Outcomes: Central to Short-Term and Long-Term Improvements in Curriculum and Pedagogy.

Curriculum

- Curriculum Design exercise in many Indian institutions: Examine the practices in some good institutions (IIT's), and adopt suitably.

- Workable, but not necessarily the best approach for your students and your objectives.

Backward Design

- A Desirable Order of Goals

  Improved Student learning: Four Dimensions
  - Knowledge
  - Skills
  - Attitudes
  - Behaviour

  Improved learning Environment.

  Faculty Efficiency and Efficacy.

  Accountability to Stake-holders.

  Accreditation.

Goals as Seen by Many Institutions

- Goals: same, But in a Different Order

  Accreditation.

  Faculty Efficiency and Efficacy.

  Improved Student learning
    – Knowledge
    – Skills
    – Attitudes
    – Behaviour

  Improved learning Environment.

  Accountability to Stake-holders.

Faculty Engagement in Continuous Improvement

- Successful assessment requires faculty participation and engagement.
- Is their focus right?

Instead of:

- What do we have to do to get NBA accreditation?

  The focus needs to be:

- How can we effect improved student learning?

Transformational Assessment

- Goals of Assessment: Information based <u>decision-making</u>.

- Transformational Assessment: Use assessment to help enhance student learning.
  - Change Pedagogy
  - Modify courses or facilities
  - Redesign curriculum

- Assessment ≠ Exams, although Exams could form an important basis of assessment.

Information basis

- Smart Data Collection is the Key

  - Collect data that would be useful.
    - Results of Relevant Exam Questions; Focussed Assignments; Lab practices, etc.
    - Build data collection as a part of course delivery.

  - Sufficient to provide a reasonable basis for action.

  - Data ➔ Information.

  - Sufficient Granularity.
    - To cover range of outcomes and student competencies well.

Criterion 7: Continuous Improvement

- Statement of NBA criterion not so crisp, although essence well captured in Criterion 3 and 7 seen together.

- More meaningful to look at the ABET statement.

- The program must regularly use appropriate, documented processes for assessing and evaluating the extent to which the student outcomes are being attained. The results of these evaluations must be systematically utilized as input for the continuous improvement of the program. Other available information may also be used to assist in the continuous improvement of the program.

Closing the Loop

- This concept, although the essence of quality assurance, is also seen to be the weakest link in most institutions seeking accreditation.

- Most institutions fail to spend enough effort in closing the loop.

- Coming from an IIT, I would say, this is true even for the IIT's to a large extent.

Why this weakness?

- After all, we all swear by continuous improvement! Then why this weakness? Several Reasons

- Lack of Leadership/Ownership: Understanding that improvement not simply an individual effort, but a formal collective process.

- Non-Compliant Faculty: Too Busy

- Ineffective Tools.
  - Discomfort with Assessment
  - Inconclusive Results

Other Reasons

- Trying to do too much
  - Unsustainable

- Inadequate Resources

- Many more….

Where Do We Start?

If We Wish To.

Management Plan

Processes

- Collecting/Consolidating Assessment Data.
- Analyzing and Reporting.
- Evaluation

Results

- Data
- Information
- Knowledge
- Decisions
- Curriculum/Pedagogy Improvements

Improvement Actions

- Curriculum changes.
- Pedagogy
- Others.

Primary Tools

- PO-CO Mapping: Understanding how Program Outcomes Embedded into Learning Outcomes for Individual Courses.

- Assessment Methods: Collecting Evidence for and Measuring the Extent of Learning imbibed by students.

- Developing Performance Indicators and Performance Rubrics.

- Analysis and Decision Making.

Today's Agenda

- Understanding the nature of these tools and processes, which a program administration could deploy.

- Not prescriptive, but indicative of the possibilities.

- Immense Scope of Innovation by Individual Institutions and Programs.

- Evaluators: Need to examine if there is a genuine process developed by the faculty for assessing attainment of outcomes.

Questions for Closing the Loop
(Are such questions being asked?)

- What do the findings tell us?

- Which improvements are critical for greater effectiveness:
    In curriculum, pedagogy, infrastructure, delivery systems?

- Did the changes implemented improve learning?

- How good is our assessment process? How can it be improved further?

- Express learning as a year-wise chart or Table, for a better appreciation.

Need for Change of Attitudes

- From
- Grading
- Scoring right/wrong answers.
- Comparison of Students

- Secretive, Exclusive.

- Add On.
- Challenging Faculty.

- To
- Assessment
- Considering the whole reasoning process.
- Comparison to measurable outcomes.
- Public, Open, participative.
- Embedded.
- Helping Students.

Thanks for Your Attention