

Outcome Based Education (OBE)

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“Outcome-Based Education” (OBE) is the buzzword in Indian higher education today. It is being adopted at a fast pace in various colleges at the moment. OBE is considered as a giant leap forward to improve the quality of higher education, particularly technical education and help Indian graduates compete with their global counterparts. Now, how is OBE going to change education sector in India? Here are four things which you need to know about **Outcome-based education** (OBE) and why it is important for higher education in India.

What is OBE?

OBE is an educational approach and a learning philosophy, focusing and organizing the entire academic programs (curriculum) and instructional efforts around clearly defined ‘outcomes’ we want all students to demonstrate when they complete the program. It is a student-centered instruction model that focuses on measuring student performances through outcomes.

Outcomes are usually expressed in terms of a mixture of knowledge, skills, abilities, attitudes and understanding that a student will attain as a result of his/her successful engagement in a particular set of higher education experience.

Why OBE?

The traditional system of education focuses on teachers inputs and presume that learning has occurred. OBE is focusing on “what the students are capable of doing”. There is clarity on what is to be achieved and that achievement (outcome) is pre-determined. OBE goes beyond usual ‘structured tasks’. It demands the students to actively engaged in the learning process and demonstrate his/her skills through more challenging tasks and higher order of thinking. OBE provides a focus for assessment and help employers understand program benefits.

Why Institutions needs to follow OBE?

The induction of India in the Washington Accord in 2014 with the permanent signatory status of The National Board of Accreditation (NBA) is considered a big leap forward for the higher-education system in India. It means that an Engineering graduate from India can be employed in any one of the other countries who have signed the accord. For Indian Engineering Institutions to get accredited by NBA according to the pacts of the accord, it is compulsory that engineering institutions follow the Outcome Based Education (OBE) model. So, for an Engineering Institution to be accredited by NBA it should compulsorily follow the OBE model. Similarly, NAAC is also now following the same path and OBE is benchmarked as a standard for accreditation.

How is OBE measured?

The OBE model measures the progress of graduates in three parameters, through:

- Program Outcomes (PO)
- Program Educational Outcomes (PEO)
- Course Outcomes (CO)

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Program Outcomes (POs) are descriptions of the qualities, skills, abilities and understandings, an institutional community agrees that its students should develop as a consequence of the learning they engage with the program of study in that institution. POs indicate what students are expected to know and be able to do by the time they graduate from the institution. POs are not directly connected to any specific academic disciplines.

Students join an institution from different backgrounds, cultures and experiences. While studying at the institution, we want them to broaden their horizon and attitudes, and to develop their current skills and abilities and learn new ones. This is expected not only to help them in their studies and future careers, but also to support their role within society. POs also reflect the Vision, Mission and Core Values of the institution.

POs are not simply taught but developed through meaningful experiences and the processes of learning and reflection. They are unique to every student, yet might be able to identify some common areas that the institution wants their students to develop. Students will have their own starting points, progress and experiences in these areas while at the institution which will shape them as individuals.

POs of an institution, are in a sense, a '*trade mark*' or an '*academic signature*' that distinguishes students of an institution from other individuals who have not studied in the same institution at a particular level and discipline. It will be an added value they offer to employers and society generally.

POs have the potential to outlast the knowledge and disciplinary contexts in which they were originally acquired. Moreover, they provide a framework for engaging with the world and with ongoing learning of new knowledge.

Examples of Program Outcomes:

Set # 1

- Deep discipline knowledge. ...
- Critical thinking and problem solving. ...
- Teamwork and communication skills. ...
- Career and leadership readiness. ...
- Intercultural and ethical competency. ...
- Self-awareness and emotional intelligence.

Set # 2

- Intellectual rigor: a commitment to excellence in all scholarly and intellectual activities, including critical judgment.
- Creativity: an ability to develop creative and effective responses to intellectual, professional and social challenges.
- Ethical practice: a commitment to sustainability and high ethical standards in social and professional practices.
- Knowledge of a discipline: command of a discipline to enable a smooth transition and contribution to professional and community settings
- Lifelong learning: the ability to be responsive to change, to be inquiring and reflective in practice, through information literacy and autonomous, self-managed learning.
- Communication and social skills: the ability to communicate and collaborate with individuals, and within teams, in professional and community settings.
- Cultural competence: an ability to engage with diverse cultural and Indigenous perspectives in both global and local settings.

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Program Educational Outcomes (PEO) are broad statements that describe the career and professional accomplishments that the program is preparing the graduates to achieve. The audiences for this educational outcome statements are external constituents such as prospective students, alumni, employers, transfer institutions and student sponsors. While designing the curriculum in any discipline, inputs from various stakeholders through feedbacks and surveys are to be taken into account. Besides these information, the inputs from professional bodies/ organizations and academic other bodies if any are to be considered for deciding upon specific outcomes in different disciplines. It is ideal to develop both Program Educational Objectives/ Goals as well as Program Educational Outcomes for each Programs. Program Educational Objectives or Goals are teachers' expectation with regard to a program whereas Program Educational Outcomes are what students are able to perform after the completion of the program. Examples of PEOs are given below:

Program Educational Goals in BSW Program	Program Educational Outcomes. Student will be able to:
<ol style="list-style-type: none">1. Prepare generalist social workers who are able to integrate the knowledge, values and skills of the social work profession for competent practice in agency settings with individuals, families, groups, communities, institutions and organizations2. Prepare students to practice ethically with diverse populations and systems all sizes to alleviate poverty and oppression and to provide social and economic justice for all citizens	<ol style="list-style-type: none">1. Apply the knowledge and skills of generalist practice with systems of all size;2. Understand the value base of the profession and its ethical standards and principles, and practice accordingly;3. Apply critical thinking within the contest of social work practice;4. Use theoretical frameworks supported by empirical evidence to understand individual development and behaviors across the life span and the interactions among individuals and between individuals and families, groups, organizations and communities

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PEO's are measured 4-5 years after graduation

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Course Outcomes (CO) are the measurable parameters which evaluates each student's performance in blooms taxonomy levels for each course that the student undertakes in every semester.

The method of assessment of the candidates during the program is left for the institution to decide. The various assessment tools for measuring Course Outcomes include Mid -Semester and End Semester Examinations, Tutorials, Assignments, Project work, Labs, Presentations, Employer/Alumni Feedback etc.,. These course outcomes are mapped to Graduate attributes and Program outcomes based on relevance. This evaluation pattern helps Institutions to measure the Program Outcome. The Program Educational Objective is measured through Employer satisfaction survey (Yearly), Alumni survey (Yearly), and Placement records.

Constructive alignment is an outcomes-based approach for teaching, in which the learning outcomes that students are intended to achieve are defined before teaching takes place. Teaching and assessment methods are then designed to best achieve those outcomes and to assess the standard at which they have achieved. It provides a framework for adjusting teaching and assessment to address the attainment of those outcomes and standards. Constructive alignment is effective in designing teaching and assessment that enable students to learn, rather than to leave them guessing as to what is involved in the course of study or on what they will be assessed. The paper highlights the importance of using constructive alignment to enhance the quality of teaching, learning, and assessment. It reports on a study that applied the principles of constructive alignment to promote good teaching and deep student learning. It discusses the application of constructive alignment to design assessment criteria and rubric for a curriculum unit.

Teaching and learning take place in a whole-system, which embraces classroom, departmental and institutional levels. A poor system is one in which the components (curriculum, teaching and assessment tasks) are not integrated, and are not tuned to support high-level learning. In such a system, only the 'academic' students use higher-order learning processes. In a good system, all aspects of teaching and assessment are tuned to support high-level learning, so that all students are encouraged to use higher-order learning processes. Biggs (1999) states that the

focus of good teaching must be on what students are doing with the knowledge, skills and competencies they are acquiring, because learning doesn't occur through just listening, action is also required (Felder, 1997). Learning takes place in a complex environment and there are many factors interacting within this system such as students' characteristics, teaching methods, curriculum, the learning objectives, and the institutional setting (Shuell, 1986). According to Shuell, if teachers want students to focus on understanding meaning, on developing high-level cognitive skills like analysis and synthesis, then the learning activities that teachers design and assessment tasks must be consistent with those objectives.

The traditional way of curriculum design defines the content to be taught, describe the ways in which the content should be delivered and the methods of assessing the content. The approach is teacher-centred and focuses on the teacher's input and it lays emphasis on content and coverage (Tam, 2014). However, in recent years there has been a paradigm shift taking place, moving the emphasis from teaching to learning and a more student-centred curriculum. This change has impacted on the curriculum design process with a greater emphasis on the learning in terms of knowledge, skills and competencies within courses and modules. The focus is on how learners learn and the design of effective learning environments. The assessment of learning is in terms of how well the students absorb the materials taught, most teachers assess students' needs and strengths by giving their students exams at specific times during the academic year, which generally occurs in one sitting. For example, multiple choice tests, true-false, fill in the blanks are traditionally used in assessing students and these types of assessment require either memorization or rote substitution. This type of exam has traditionally been the predominant instrument used for student assessment. For the most part, students are not allowed to participate in assessing their own progress or accomplishments. However, teachers have realised that 'academic exams' are a limited type of assessment, they do not thoroughly or accurately give a view of the students' academic development, performance and capabilities. These academic exams do not consider students' various learning styles, their personal backgrounds, their interests and their needs. Because of these limitations in traditional assessment, teachers have begun to use other types of assessment that are more responsive to student diversity. Diversity in higher education increases as students migrate all over the world and as more students from different social and economic backgrounds access education. Educational goals have moved beyond simple knowledge acquisition to promoting student engagement and higher order cognitive functions such as problem solving and critical thinking which are the characteristics of deep learning. Teachers, now more than ever before, need to learn more about their students and their students' needs. Assessments that will help in this process and support students in overcoming barriers to learning are a means of helping both teachers and students.